HONEY DEW NEWS

AUGUST-SEPTEMBER

1948

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HONEY DEW NEWS

1948

Published Bi-monthly by and for Employees of the

SPRECKELS SUGAR COMPANY

***OUR ENDEAVOR** is to print information of likely value to members of the Spreckels organization so that we may better and more quickly learn from each other and about each other . . . to promote individual enthusiasm for doing better things in a better way with the firm belief that real merit cannot for long go unrewarded.*

EDITORIAL STAFF

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Spreckels, California

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Typist, June Davis

Member of
Northern California Industrial Editors' Association

*

COVER DESIGN by Dan Runyan

ACKNOWLEDGMENT — The editorial staff is grateful to the many Spreckels employees and interested friends who contributed material for this issue of *Honey Dew News*, who, delving into their personal treasure chests brought forth valuable private records and interesting family albums.

The First Output of Sugar

The whistle at the sugar factory blew a long loud blast about 15 minutes after midnight Friday. It set many persons who were up that late hour, to conjecturing the occasion for the unusual commotion. Saturday morning it was learned that the moving cause thereto was the fact that at that particular moment the first sugar had come through the greatest factory in the world.

— *Salinas Journal,* Aug. 27, 1899

The First Day's Run

The Spreckels Company have had their trial run on beets at the new sugar factory, and everything about the establishment was found to work like a charm. In the twenty-four hours' run, 1,733 sacks of sugar were turned out, which, of course, is not the capacity of the plant. Tomorrow the factory will start on its regular run and be operated day and night until the end of the campaign.

— *Salinas Index,* Aug. 31, 1899

The First Campaign, 1899

Acres planted	22,959
Acres harvested	16,906
Tons harvested	175,388
Tons per acre	10.37
Per cent sugar	14.85
Sacks brown sugar	384,374
Pulp run into silo	
Paid for beets, per ton	$4.50

F.O.B. Pajaro Valley Consolidated Railroad Company's cars.

It was first attempted to make white sugar at Spreckels in 1904. White sugar has been manufactured continuously since 1905.

— From Chronological History compiled by Charles L. Pioda.

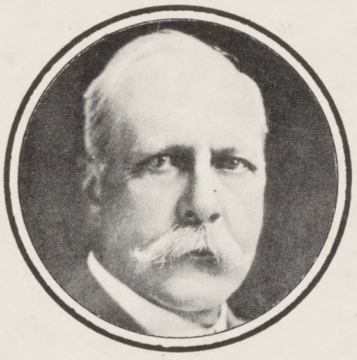
Campaign of 1947

Acres planted	30,267
Tons harvested	614,006
Tons per acre	20.59
Per cent sugar	16.69
Average paid per ton beets	$14.97

NOTICE

Please complete enclosed questionnaire and mail same to editor before October 12, 1948, the deadline for the October-November issue of *Honey Dew News.*

FIFTIETH ANNIVERSARY



John D. Spreckels

Claus Spreckels

A. B. Spreckels

THE START of the 1948 campaign marks the fiftieth continuous year of operation for Spreckels Sugar Company — fifty years which have seen Spreckels expand from one factory to three, growing apace with California.

The second successful beet sugar factory in America was the one founded at Watsonville in 1888 by Claus Spreckels, and dismantled when he built the world's largest beet sugar factory at Spreckels, California. The first campaign in the just-completed building was in the year 1899 when California was not yet fifty years old and ranked twenty-first on the nation's population chart.

Nine years after the Spreckels plant was founded, Claus Spreckels, one of California's great business leaders, passed away. His sons, John D. and A. B. Spreckels, followed in his footsteps and planned for future expansion, keeping abreast with California's rapid growth.

In 1918, a new Spreckels factory was opened at Manteca to process the beets grown in the rich San Joaquin Valley. California was now the eighth largest state in the Union.

Neither California nor the Spreckels Sugar Company were ready to stop growing. In 1937, Spreckels built one of the world's most modern factories at Woodland, in Yolo County, at a cost of two and a half million dollars. Its equipment and facilities were the result of world-wide research by Spreckels experts.

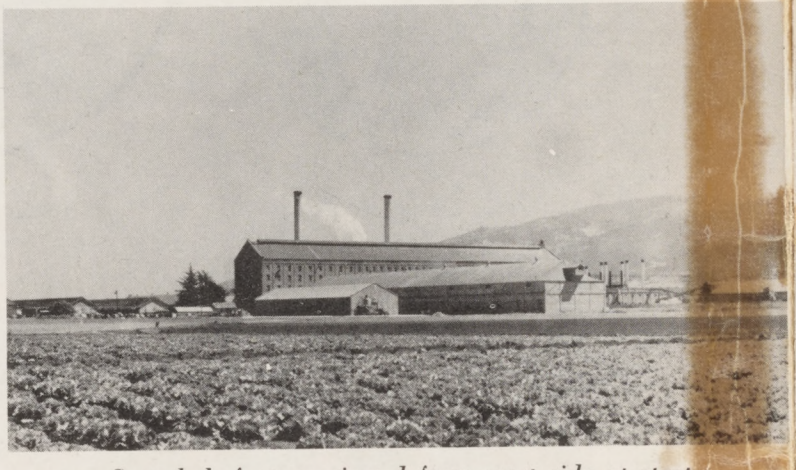
Today, Spreckels Sugar Company ranks as one of the nation's greatest sugar producing companies, in California, the number one beet sugar producing state in the United States, and the third largest state in population, ranking closely behind Pennsylvania and New York.

How much sugar does the Company produce? Production for 1947 was 3,239,000 one-hundred pound bags, which means that millions of dollars were paid to growers and employees and, in turn, the grocer, the butcher, the baker, candlestick maker — every business man in the factory town and beet growing areas — benefited from this great Spreckels production.

Spreckels 50 Years Ago

And Today

Spreckels factory in readiness for the first campaign. Town of Spreckels in distance



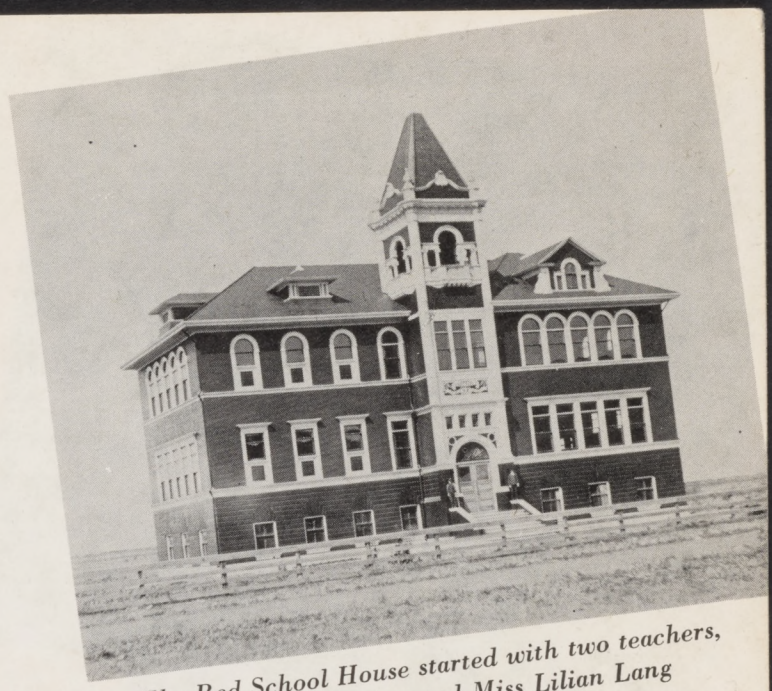
Spreckels factory viewed from west side at start of fiftieth campaign

Photographers, Robert Flores and W. C. Sargent

Town of Spreckels from top of Main Office, showing Spreckels Hotel and car line which ran along Spreckels Boulevard, the Monterey Road, and through Main Street, Salinas

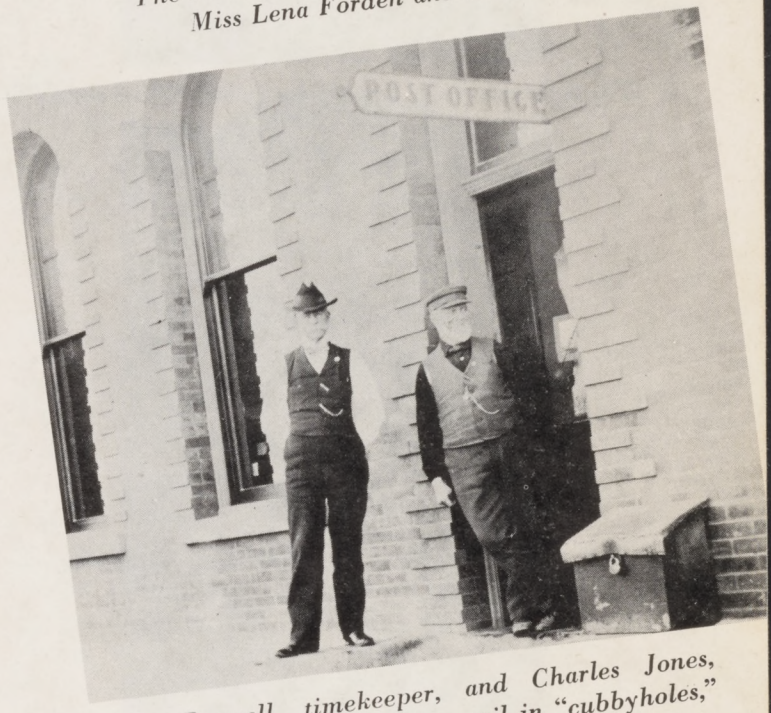
Airplane photograph of Town of Spreckels

The modern Spreckels Grammar School has a principal, ten teachers, and an average enrollment of three hundred and thirty



The Red School House started with two teachers, Miss Lena Forden and Miss Lilian Lang

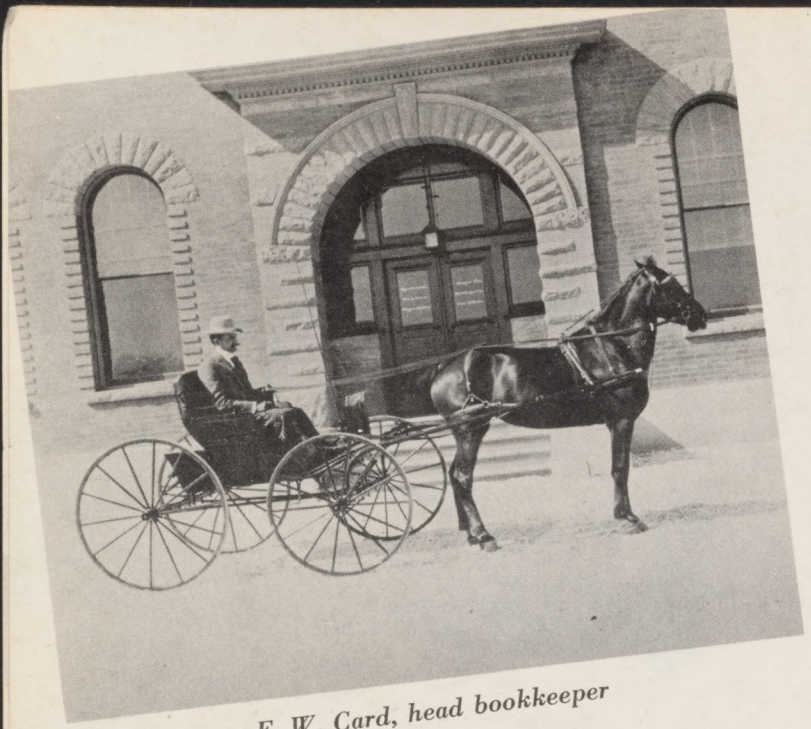
W. S. Young, postmaster of the new second-class office, has two assistants and rents 333 boxes



C. Buswell, timekeeper, and Charles Jones, postmaster, who filed the mail in "cubbyholes," one for each letter of the alphabet

Occasionally, Spreckelites hired a three-seater for a Sunday ride to Toro Park

Spreckels Hotel — "Gone with the wind"



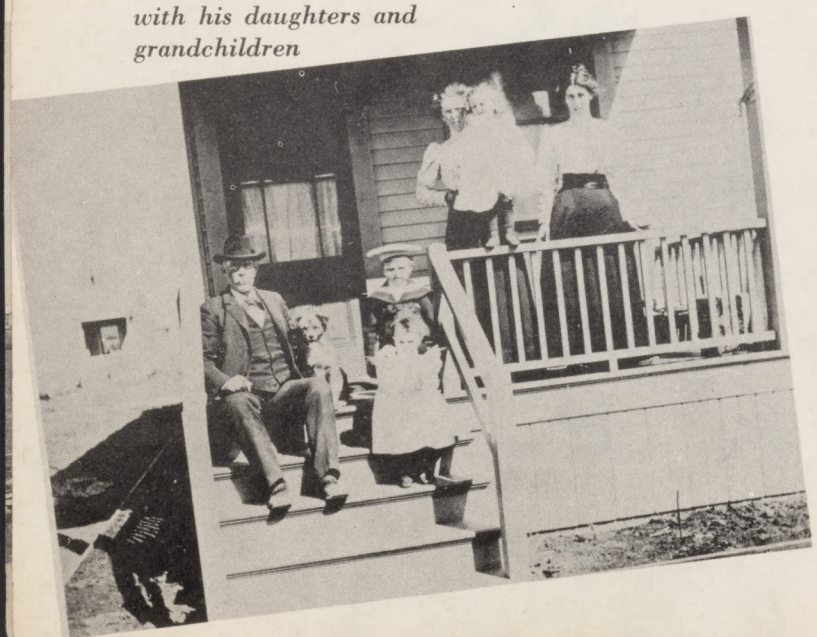
E. W. Card, head bookkeeper

P. K. Joy, office superintendent, 1948

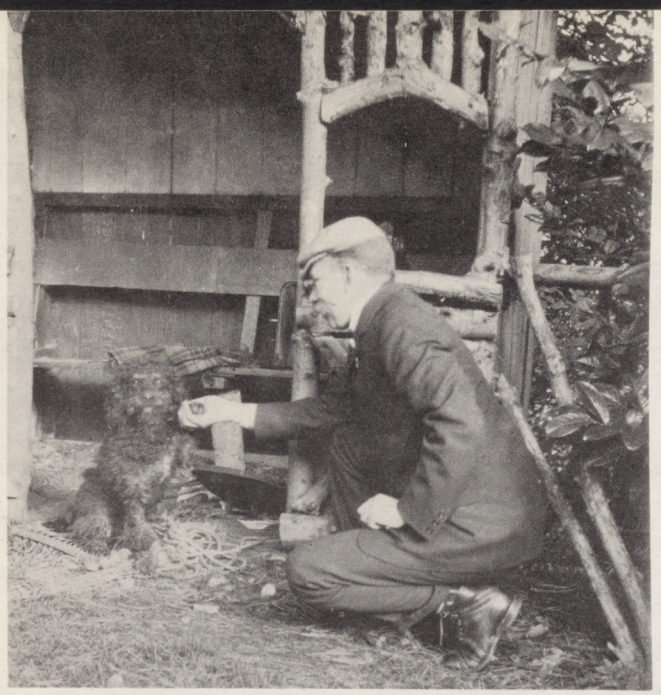
B. F. Arendt, first factory superintendent, 1905

Ira Resch, factory superintendent, 1948

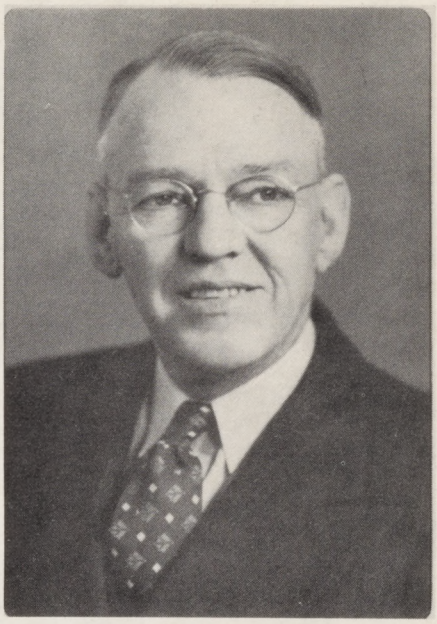
John Cairns, first master mechanic, with his daughters and grandchildren



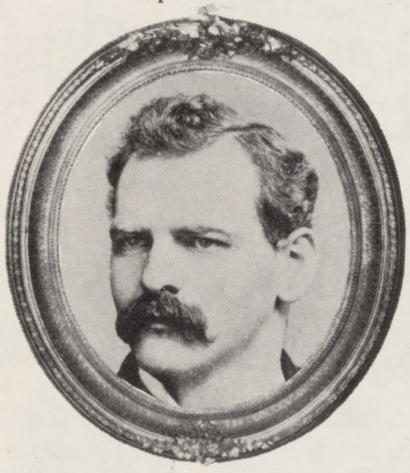
A. J. McKinley, master mechanic, 1948



Percy W. Morse, the first agricultural superintendent

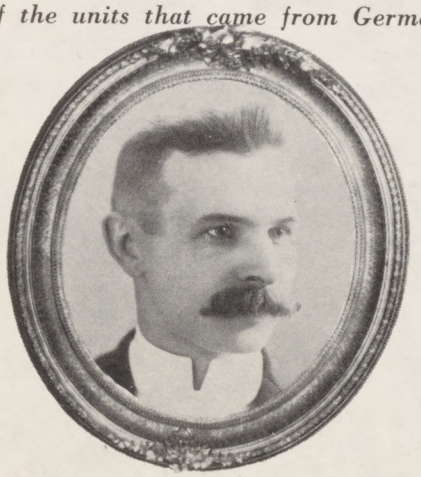


William H. Paulsen, agricultural superintendent, 1948



Joseph Rhyner, chief, with a staff of 27 draughtsmen, made the plans for the Spreckels factory and all the detail drawings, including drawings of the units that came from Germany

W. O. Witherspoon, resident engineer, 1948



Charles L. Pioda at the time he surveyed the site for the Spreckels factory. He became resident manager and was in the Company's employ for forty-eight years

W. L. Gerow, engineer, 1948

W. E. Farnam, Guy Manuel, Ronald Hayes, A. A. Norman, J. E. Coke, W. J. Resch, W. H. Ottey, C. J. Moroney, Gordon Lyons, E. L. McKeany, H. F. Melvin, Robert LaPlace, E. A. Schwing were among those who attended Manteca's Golden Anniversary celebration

MANTECA *Factory 2*

Ed Powers

Manteca factory started the 1948 campaign Thursday, July 29.

On the fourth day of operations, over 1900 tons of beets were sliced and on the tenth day over 2000.

At the end of two weeks the daily average slice was 165 tons greater than on the corresponding day in 1947.

Spreckels float in the Sportsman's Parade. May Lou Moore at the wheel. Left to right, Lucy Texeria, Jeannet Mannig, and Olga Fabbri

By B. O. BAUER

THE MANTECA Chamber of Commerce and the Manteca Lions Club joined the Spreckels Sugar Company in an outdoor dinner party held on the lawn near the Company's office, in honor of the fiftieth anniversary.

George Murphy, Jr., president of the chamber of commerce, and Max Young, president of the Lions Club, took turns in introducing the honored guests. Mayor John McFall welcomed the visitors and spoke of the pride that the people of Manteca and vicinity have in the Manteca factory.

Ed Powers, through whose efforts the land for the sugar factory was secured and who played a prominent part in persuading the Company to build its plants at Manteca in 1917, told that beets were grown in this area two years before the factory was erected, the beets being shipped to Spreckels.

Dinner speakers included Company officials. Prominent beet growers were introduced by Bruce Duncan, who explained their part in the success of the beet sugar industry.

Glimpse of the Golden Anniversary Dinner Party

Golden Anniversary celebrants visit on the lawns preceding the dinner party

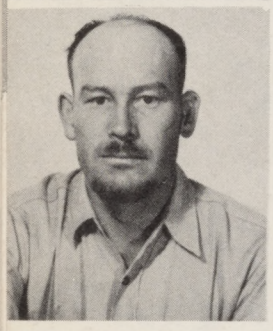
In the presence of the entire crew, W. J. Resch presents the semi-annual Safety Award earned by Factory 2 for the first half of 1948 to Superintendent A. A. Norman. A "news hound" observes the ceremony

The Lions Club quintet comprising M. P. Glassebrooke, Bruce Duncan, Monty Honey, Oscar Breitenbucher, Charles Porterfield, and Edward Perry, with the latter as accompanist, sang several barber shop classics on the occasion of the Golden Anniversary celebration

Dave Foskett

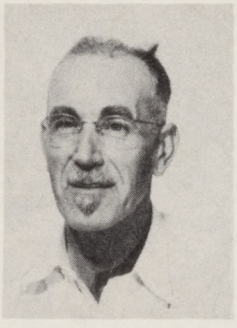
WOODLAND *Factory 3*

By L. E. MELTON and MARION EAKLE



Gib Hazel

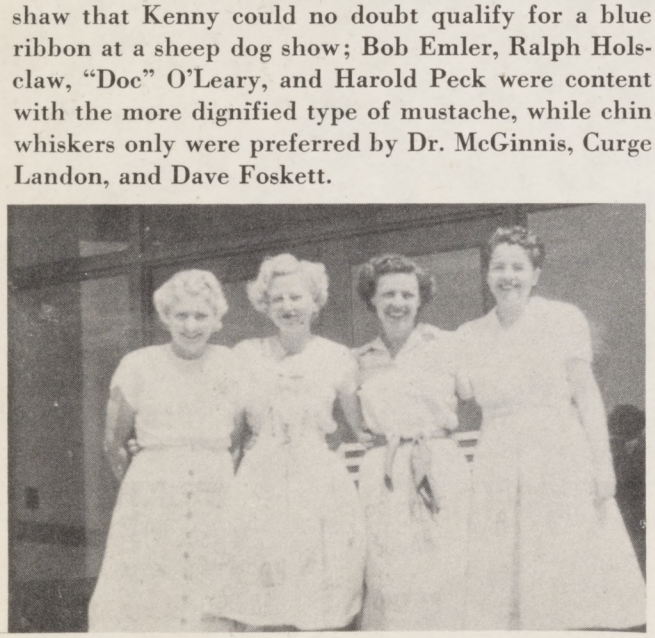
Louie Costa



Howard Stafford

THE OFFICIAL opening day of the Whiskerino contest to be held during the Yolo County Centennial found most of the men at Factory 3 among the unshaven. During the first week a few became discouraged and appeared with faces clean shaven, some compromised with sideburns and/or mustaches and others made no attempt at beard control.

To mention a few contenders, Louie Costa is a definite aspirant for honors, if quantity is considered; Howard Stafford adopted the more conservative Kentucky colonel style usually associated with mint julep; Kenny Kerr's impressive sideburns and curly locks prompted the unkind remark from Felix Hinshaw that Kenny could no doubt qualify for a blue ribbon at a sheep dog show; Bob Emler, Ralph Holsclaw, "Doc" O'Leary, and Harold Peck were content with the more dignified type of mustache, while chin whiskers only were preferred by Dr. McGinnis, Curge Landon, and Dave Foskett.



A. V. Albin, Alice Miller, Joanne Jacobs, and Marion Eakle carried out the spirit of the 50-year celebration by wearing skirts made from sugar bags

B.S.O.U. 1948 Committees

Qualifications: William Geisick, R. H. Owens, and W. A. Marken.

Safety committee: J. J. Smith, chairman; C. J. Stadler, C. B. Kropf, R. B. Williams, W. K. Whitehead, William Geisick.

Personals

MILAN E. HINKLE, Walter T. Reiff, and Froylan J. Guerrero attended the National Guard Camp, near San Luis Obispo, during the last two weeks of July.

NANCY HALDEN, 12-year-old daughter of Mr. and Mrs. Harold Halden, appeared recently in the Hobby-Nobbing section of the *Woodland Democrat*. Her hobby is sketching.

TWO DAUGHTERS of employees were entered in the Yolo Sugar Queen contest, Dorothy, daughter of the Chris Pedersens, and Joyce, daughter of the Roy Ratekins.

HAROLD DAESCHNER and Miss Dorothy Bergen were married in Berkeley on Friday, August 6. The newlyweds left the following day for a three-week trip to Colorado. Daeschner was employed as chief chemist at Manteca and Woodland and left Factory 3 in December, 1944, to accept a position with the Shell Development Company in Oakland.

THE UNION consent election, held on August 3, was conducted by Agent Blum for the N.L.R.B. Observer for the Company was Mrs. A. V. Albin with Kenny Kerr and Bill Geisick acting as observers for the Union. One hundred and thirty-eight employees were eligible to vote during the election.

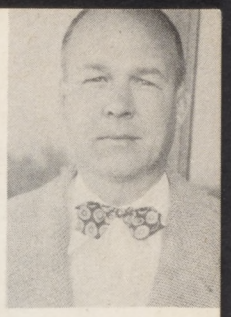
THE FIRST TRUCKLOAD of 1948 beets were received at the Factory 3 beet dump on the afternoon of August 9. The beets were grown by W. J. Duffy and shipped to Spreckels for processing.

CASILDA MARINA FIGUEROA and Al Vasquez were married at a civil ceremony in El Paso, Texas, on July 3, and two days later, on July 5, there followed a formal ceremony at St. Francis Cathedral in Chihuahua City, Chih. State, Mexico.

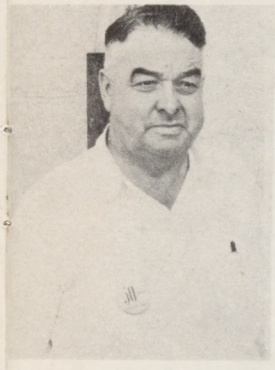
THE CHARLIE VANDERLAANS have a daughter, Marie Sharonann, 7 pounds 6 ounces, born August 3.

Production Department

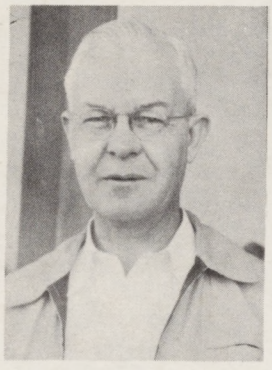
FACTORY 3 ORGANIZATION



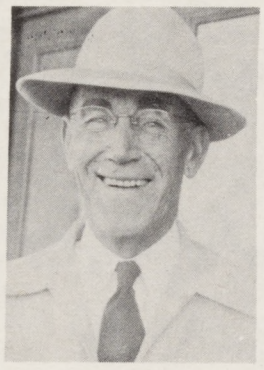
W. W. Conner
Superintendent



W. L. Meikle
Shift
Superintendent

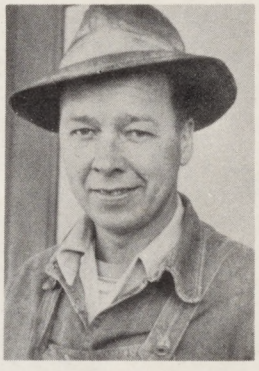


F. Center
Shift
Superintendent



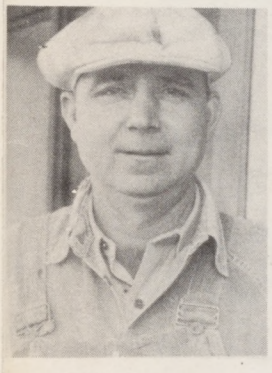
H. M. Stafford
Shift
Superintendent

L. J. Davis
Sugar End
Foreman



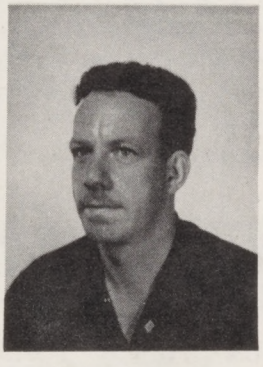
R. J. Berry
Sugar End
Foreman

G. Hazel
Sugar End
Foreman

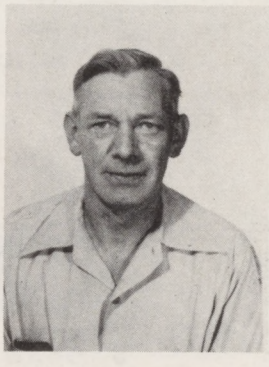


G. G. Findley
Beet End Foreman

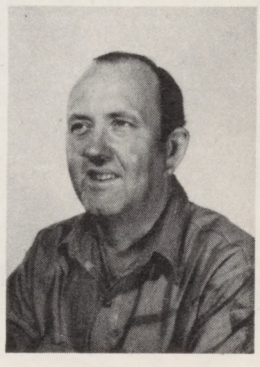
D. E. Bingaman
Beet End Foreman



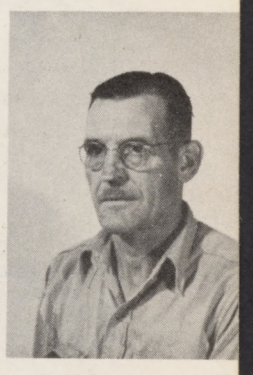
S. E. O'Leary
Beet End Foreman



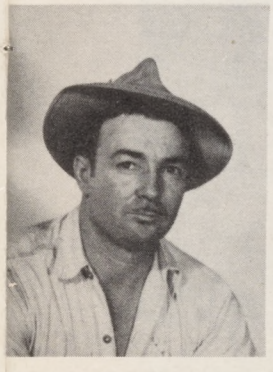
M. C. Pedersen
Master Mechanic



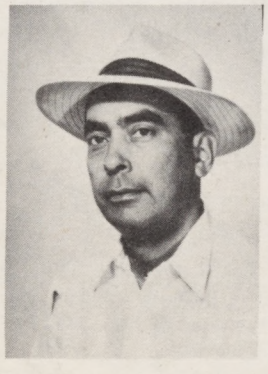
H. L. Hutchings
Assistant Master
Mechanic



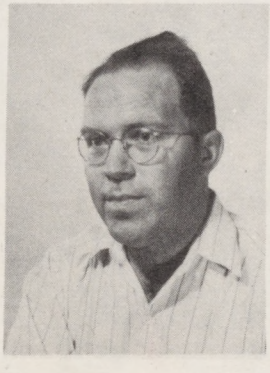
R. E. Emler
Assistant Master
Mechanic



R. B. Foster
Yard
Foreman

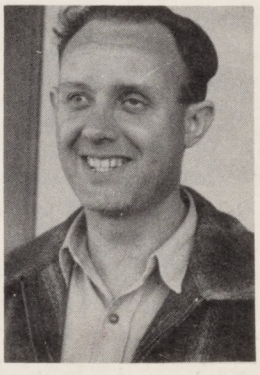


F. C. Hinshaw
Warehouse
Foreman

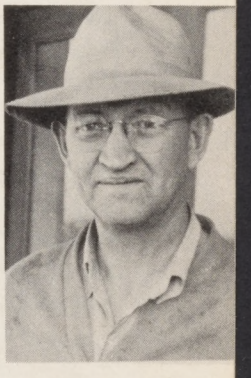


S. Moore
Chief
Chemist

R. C. Holsclaw
General
Foreman



D. B. Foskett
Chief
Electrician



R. E. Ratekin
Assistant Master
Mechanic

JOE PACELLI'S RETIREMENT PARTY — Several hundred people passed through the shop, on July 9, to wish Joe Pacelli, refinery painter, good luck and contentment during his retirement. The party included a huge cake and cigars. Joe Grimes and Phillip Vaccaro, to the music of a record changer, did a dance that had everyone in stitches. Everyone had a good time and Joe enjoyed it most of all. Joe who retired after twenty four and a half years of service, was presented with a lawn swing, chairs, and cigars. He will live with his son in South Palo Alto

SEA ISLAND NEWS

By GENE BARWICK

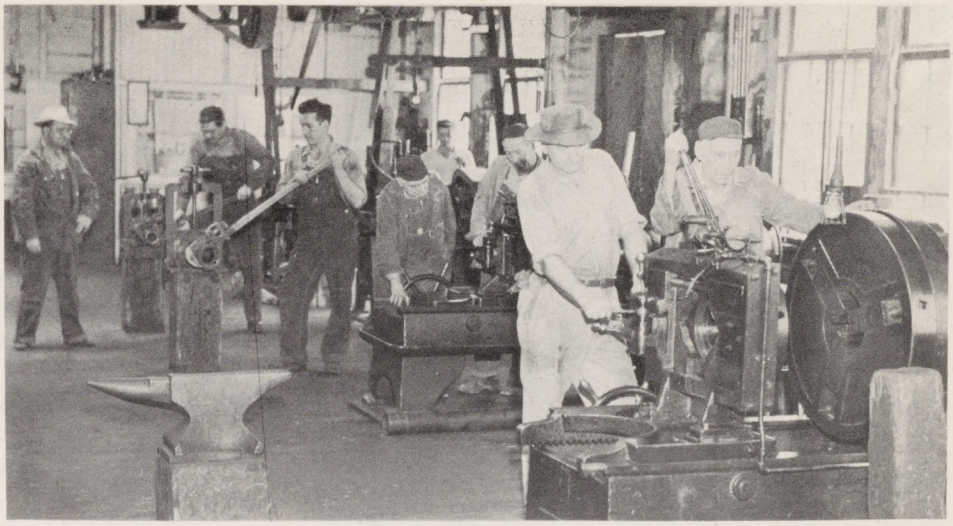
Photos by Whip Morton and Carl Ramirez

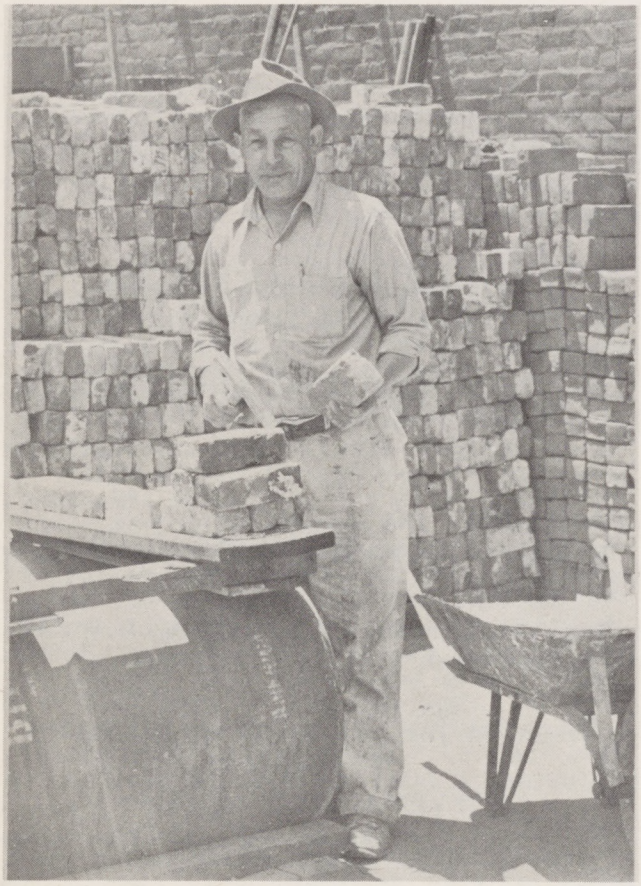
BILL ROSS was born in San Francisco and went to work for Western Sugar in 1926. He estimates that in the past twenty years he has driven the refinery cars approximately one-quarter million miles, mostly between the refinery and the General Office at 2 Pine Street. Bill, whose brother is Harry Ross of the sales department, is a bachelor and lives with his mother. He is interested in music and at one time had his own orchestra.

Oh, yes, if you need a ticket on anything, see Bill.

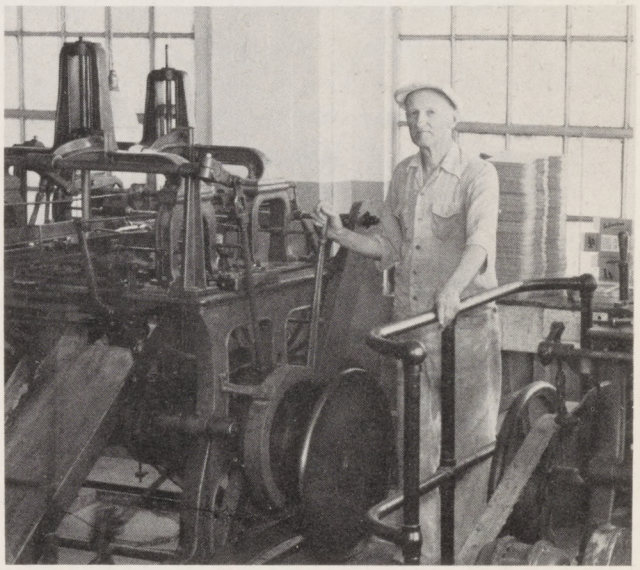
A glimpse of the pipe shop force. Left to right, pipe shop foreman George Kendall, thirty-one years; Grant Orr, Bob Houtz, Harry Fass, twenty-three years; George Breckenridge, Tom Harvey, Roland Antill, and Tom Garling, twenty-seven years.

The work of the pipe shop is an important contribution to the production of sugar. It is they who are responsible for the installation and servicing of the miles of pipe lines which are a necessary part of any sugar refinery.





Concetto "Carlo" Vaccaro is a native of Italy and came to America in 1910 at the age of twenty-one. Before coming west, he worked as a stone mason in Buffalo, New York, and Boston, Massachusetts. He has been a bricklayer at the refinery for the past thirty-five years. "Carlo" is married and has seven sons. Until recently he was the part-time gentleman farmer of Marin County, but has moved back into his home in San Francisco



John Seiter, at the Brightwood carton shaping machine, has a long service record

ARTHUR BALLIET
1904 – 1948

Arthur Balliet, sugar boiler and head steward of the I.L.W.U. at the refinery, suffered a heart attack and died suddenly, August 7. He is survived by his widow and six children, one of whom, Arthur, Jr., works in the laboratory. A brother, George, is also employed by the Company.

"Art" was first employed at the refinery on February 15, 1929. He served in the U.S. Army during the war and returned to the refinery on August 17, 1945.

Funeral services were conducted by the Veterans of Foreign Wars and Jonathan Lodge, F. & A.M. Military services were also conducted when he was buried in the Golden Gate National Cemetery at San Bruno.

Henry Seger, Herman Benecke, and William Schindler at the refinery in 1908 with the beer mugs — but no beer

BEER! - A SUGGESTION

By HENRY SEGER

A LUNCH period in the forenoon and again in the afternoon with a quart of beer for each lunch period was suggested by Claus Spreckels. Accordingly, a central beer depot or "Rathskeller" was established at the refinery and every employee received a quart of beer twice a day.

This admirable custom was discontinued just before I started to work, but every employee still had his beer mug — a tin cup with the employee's number painted on the side. The men were now using them for tea or coffee, and lamenting the loss of the beer. They were still quite vexed with the foremen for spoiling a good thing, for at their door, it seems, the blame was laid.

The beer was delivered to the men by employees appointed for that purpose, but the foremen and a chosen few had access to the beer cellar in person. Human nature being what it is, and all the foremen being Germans, there could be only one result. The privileged began to remain in the cellar for more and more extended periods; the draughts of beer became longer and deeper; the visits back to their jobs became fewer and fewer.

Meantime, the men (also mostly Germans) became envious, disgruntled, and restive. Why should the foremen be entitled to more beer than they? Who did all the work around here, anyway?

The situation gradually became more acute. The foremen spent more and more time in the beer cellar; more and more beer gurgled down their appreciative throats. They began to look at the world through rose-colored glasses, and the inspiring strains of "Ach! Du Lieber Augustin" and "Die Wacht am Rhein" frequently drifted up from those gatherings.

Then, they began to run short of beer! A check was comparatively simple. A certain number of men were employed at the Sugar House. An allowance of one-half gallon per man totalled a certain number of gallons per day. The beer was ordered accordingly but there wasn't enough to go around — in other words, some of the men were left with parched tongues, an unslaked thirst, and a badly shaken morale.

It required no astute detective work to discover the diverted course of those missing quarts of beer. Peter Schmidt, manager of the refinery (the first, by the way) imposed certain restrictions on the foremen, but their effect was short lived. The lure of the liquid gold was more than those Germans could withstand. Very soon "Prosit" and "Gesundheit" were again too often heard around the beer barrels. They had violated their probation — and beer was banished from the plant forever.

*

Suggestion Awards Granted

JULY AND AUGUST, 1948

SPRECKELS —

W. J. Rhyner, $50.00 — Automatic closing on doors and lock on rock cars.

L. E. Wheeler, $5.00 — Condensate distribution board.

WOODLAND —

L. J. Davis, $5.00 — Single sheet report for sugar and results.

Suggestion Committee: P. W. Alston, J. E. Coke, O. H. Dersheimer, W. K. Gray, W. J. Resch.

Statistics for Clear and Constructive Thinking

SEVEN MONTHS — 1948

	No. Suggestions	Number Adopted	Per Cent Adopted	Average Award
Factory 1	54	8	15.	21.81
Factory 2	9	5	56.	21.00
Factory 3	34	11	32.	11.82
San Francisco	0	0		
Agricultural Dist. 1	2	1	50.	10.00
Agricultural Dist. 2	6	1	17.	10.00
	105	26	25.	16.52
Average 1947	461	159	34.	10.74
Average 1946	162	57	35.	15.83

Chapter Twenty-Two

The Industrial Relations Department

THE NEED

The rise of a need for specialized attention by an Industrial Relations Department of management-employee relations can be explained by reference to the development of industry. Fifty years ago business enterprises were largely privately-owned concerns employing relatively few people, who were directly supervised in their work by the owner. He knew his employees personally, could either recognize their problems and viewpoints himself or could get their opinions and handle their grievances on a personal basis. His contacts with those working for him were frequent and direct.

As the business expanded and became a corporation employing hundreds or thousands, the owner stepped out of the scene. In his place came salaried management and a necessary impersonality of viewpoint caused by the size of the company. Today, management's relations with employees are in the form of contacts of many line-executives whose chief interest must be production.

This transition, from limited size and personal contact with the management, to large size and many impersonal contacts with representatives of management, has brought the need for a department in any large company whose responsibility is to keep itself informed of the viewpoint of the rank and file and to present that viewpoint to top management in a fair and reasonable manner. Its further responsibility is to guide line-executives in their handling of employee-relations through its fuller understanding of the labor policy of the company. Their attempts to handle labor relations are necessarily secondary to their duties in carrying on production. They cannot all hope to deal with employees in the same way. Yet uniformity is the prime requisite of a successful personnel program. It can only be achieved through a central interpreter of labor policy.

Increased social regulation of industry has brought about a further need for specialization in management-employee relations. Numerous Federal and State labor laws demand attention. A company needs a specialist who understands their restrictions and can act as a guide in the management's actions. These laws have given rise to many formal negotiations with organized labor's representatives and to the writing of detailed contracts. Here, too, the advice of an Industrial Relations specialist has proven indispensable to management.

Well-handled personnel relations can bring about savings for a company; inconsistent, ill-advised action leads to expense and problems. Since Industrial Relations Departments have shown that they are necessary in management's relations with employees, they have become parts of company organizations.

THE PLACE

The Industrial Relations Department is concerned with all the activities and contacts affecting the relationship between management and employees. The Department acts almost entirely in an advisory and consultative capacity for the organization of the company as a whole. It is usually considered as a staff, and not a line department. "Staff" employees are solely advisors, while "line" employees are responsible for actual execution of the company's policies and instructions. Foremen, department heads, and superintendents are all examples of line-executives. The place of an Industrial Relations Department is clearly in the staff-executive group. It has a broad, educational policy-proposing and policy-instituting function. It remains entirely for the line-executives to maintain directive contact with the employees and to translate into action the personnel policy of the organization.

The chief objection to the institution of an Industrial Relations Department comes usually from foreman, and other line executives, on the basis that this new department would take away some of their authority. Their idea is that line executives, who are best-equipped to handle employees' relations with their company, should not be interfered with. When the theory of Industrial Relations is explained, one sees that these objections are based entirely on a misunderstanding of that theory. One of its most vital concepts is that direction of all other departments should not be interfered with at all from the operating point of view. Suggestion and counsel are the tools of an Industrial Relations Director - he cannot fulfill the functions of management except in a few instances, nor can he solve management's problems. Yet he can be of vast help, and, by counsel or advice, through his intimate knowledge of conditions, and particularly of individuals, can guide management.

The answer to the complaint of the line executive discussed above is that the Industrial Relations Department is created solely to better direct and make more effective his relations with employees. Such a department which assumes any of

his authority is definitely acting against its own interests and against that of the company.

The place of an Industrial Relations Director in his company should be one of staff-advisory responsibility, reporting directly to the top management.

Industrial Relations Managers in the factories belonging to the company report as staff assistants to the factory Superintendents, and have a staff relationship with the Director of Industrial Relations. Though the Director should never be in a position to order compliance from line executives, he should have the right of access to the chief executive officers of the company, in order to obtain decisions by them directing the proper action in employee-relations to be taken by line executives. He must, however, always respect the final authority of line executives. In order to assure the success of an Industrial Relations program, they in their turn, must cooperate with the Department as closely as possible. Since they are on the "firing line", so to speak, their knowledge of personnel problems is sure to be valuable to the Department. They should keep it informed of all developments in labor matters, and should consult with the members of the Department before making final decisions on these matters.

If the Department and line executives operate on these principles, better coordination will result, every supervisor will be better equipped to make decisions in personnel matters, while possessing full responsibility in making these decisions.

THE FUNCTIONS

It was stated above briefly that an Industrial Relations Department is concerned with all the activities and contacts affecting the relationship between management and employees. Further, it was said that in most of its work the Department acts in a staff advisory capacity. We can best clarify this vague language by looking at the actual work an Industrial Relations Department has to do. Its functions may be broken down under several headings; (1) Employment, (2) Safety and Health, (3) Training, (4) Research, (5) Service, (6) Adjustment, (7) Contract Negotiations.

(1) Employment

The job of hiring the working force is one of the Department's functions in which it acts as a line-executive. A specialist in the labor-market field, the Personnel executive studies wage rates paid by other companies, checking these against the rates of his own company. He has a thorough understanding of jobs in his own organization, using for this purpose job descriptions and evaluations written up by men actually in close contact with the jobs. Armed with these descriptions and an understanding of the terms of employment in other companies, his office is well fitted to consider the applications of those seeking employment. The Department's duty in hiring new workers is one of interview, checking of references, collecting the information necessary for the final decision of the Department Head of Foreman. Then a brief discussion of company policy and rules is necessary. Once on the job, the employee's records must be kept up to date. When an employee terminates his service with the company, the Department must interview him to insure fair treatment and to know why he is leaving.

(2) Health and Safety

Simply from a good-business viewpoint, health and safety work in a company are of prime importance. Today, an employer is either liable under law, or is forced by public opinion, to sustain most of the cost of illness or injury to his employees. Since this is the case, it is only natural that the Industrial Relations Department should be charged with the organization of both the preventive and the remedial approaches of the two problems. Medical examination for new employees has proven practical in getting the best quality employee, physically. This calls for a regular company service - either a complete medical department, company owned and managed, or arrangement with local doctors and clinics for special services. In the organization of this work, the Department is usually expected to act in a line-executive capacity. But in its administration - in educating the employees to use the facilities at their disposal - the company will look to the actual supervisors.

In recognition of the importance of safety, the Department will have at least one man attached to its staff who is the Safety Director. To him falls the problems of accident prevention, the job of inspection, elimination of hazards, and most important, the education of the man directly exposed to danger, or the proper method of doing the job. Here again, one sees the idea of staff direction - for the Safety Director does a large proportion of his work through the regular supervisors. Showing them the chances to better safety records, he leaves the direct administration of safety rules to them.

(3) Training

Any company content to carry on operations indefinitely without modification

and improvement is slated for trouble. In the same way, a company uninterested in giving its employees every chance to better themselves through education is likely to become stagnant internally. The work of training operating and supervisory employees is one calling for planned action rather than haphazard attempts, or, worse yet, inaction. The organization of such training is a part of the work of an Industrial Relations Department. For a large company, apprentice training often has been found desirable. For any company, be it large or small, instruction of all employees in company policies, standards, and methods can stimulate interest and cooperation. Among supervisors, foreman-training programs, covering methods of supervision, technical aspects of production, and company problems have been found useful.

The organization of these programs must fall on the shoulders of the Department. In some cases - foreman-training, for example - the actual administration of the program is a part of the Department's duties.

(4) Research

Only through its ability to advise either from knowledge or upon reference to sources of knowledge can the Department be of real value. It is therefore of primary importance that an Industrial Relations Department carry on continuous work in building up its knowledge of existing conditions, experiments, proposals, and the underlying theories relevant to matters connected with Industrial Relations. This means, specifically, wage surveys, study of periodicals, covering court rulings on labor laws, exchange of safety and health information with other companies, etc. It is upon the basis of its own files or knowledge of the whereabouts of other files to which it has access that the Department can offer sound advice to those men in the company engaged in formulating policy and then assisting in the administration thereof.

(5) Service

The old concept of Industrial Relations was that it was welfare work, unimportant to the company, tolerated only because it could occasionally make nice gestures which kept an employee's self-respect from going completely by the board. This concept has been discredited and Industrial Relations developed into an essential facet of company organization. There has been only one healthy hangover from the old - the idea of service to the employee. Whenever problems arise which are not covered by grievance procedure or existing channels of alleviation, the Department is available to any employee, giving of its advice or assistance where possible.

(6) Adjustment

Though the Department cannot change salaries, institute new procedures or correct malpractices, yet it serves as a clearing house on such problems. In the factory the employees committees look to the Industrial Relations Manager who is the "go-between". His function in such matters is to bring management the viewpoint of the employees in a fair and reasonable form. In most cases coming to the Department or its representatives in the factories for adjustment, the Department will study the problem, make its recommendations, and pass them on to top management or the level of the supervisory force which should act on the matter.

(7) Contract Negotiations

An important phase of work in the Department comes in union contract negotiations. Here is seen best the need for specialization to understand fully both sides of arguments sure to arise during negotiations. Having helped formulate company labor policy, knowing clearly its competitive position, and with access to past and present contracts in the competitive area, the Director of Industrial Relations is able to interpret to labor the stand of management. In the same way, knowing conditions of work, competitive wage-rates, having a more thorough understanding of labor's stand, he can interpret to management the desires of the employees better than others.

The Industrial Relations Department, then assists in developing company labor policy. To do this, it studies theory and practice in the field, seeking always to combine that which is suitable for the company and its employees with that which has proven meritorious in practice elsewhere. In many cases, it organizes the framework for better management-employee relations. Never, however, does it usurp the actual administrative responsibilities of the line executives. Its administrative functions - employment records, safety inspection, and education, foreman-training, research into wages and working conditions, and administration of pension systems and benefits - are all intended to make the actual supervision of employees more enlightened and carefully planned. Without understanding existing conditions in the field of labor relations, management can only hope that its actions are not leading it into future trouble. With the specialized attention of the Industrial Relations Department to guide management, the outcome is calculated to be one better able to stand the tests of time and experience.

Chapter Seventeen

The Steffen Process

As has been described in an earlier chapter, molasses is a sugar syrup which is so impure that further crystallization of sugar from it is impractical. It is therefore discarded from the sugar end of the factory, but is of considerable value for several further uses. A typical analysis of beet molasses is shown in Figure 1:

Fig. 1 - TYPICAL ANALYSIS OF CALIFORNIA BEET MOLASSES

	Percent
Water	16.5
Total Solids	83.5
Organic Constituents	
Sucrose	51
Raffinose	1
Invert Sugar	1
Glutamic Acid	3.5
Other Protein	5.5
Other Organic	10.0
TOTAL	72
Inorganic Constituents	
Silica	0.1
Potassium	3.9
Sodium	1.3
Iron Oxide	0.02
Aluminum Oxide	0.07
Calcium	0.26
Magnesium	0.16
Sulfate	0.55
Phosphate	0.06
Chloride	1.6
Carbonate	3.5
TOTAL	11.5

1. Cattle Feed: Molasses makes an excellent supplementary feed. It may be used in siloing green feeds such as beet tops or pressed beet pulp, where it serves as excellent preservative. It may be dried together with beet pulp to form a valuable and highly palatable dry feed.

2. Fermentation Industries: Beet Molasses is an especially valuable raw material for the fermentation industries, and is widely used in the production of alcohol, citric acid, and yeast. Besides sugar, it is rich in minerals and nitrogen, which the microorganisms used in these industries need for growth.

3. Chemical Recovery of Sugar and By Products: Because beet molasses contains a high percentage of sucrose and a very low percentage of other carbohydrates (or other compounds with similar chemical properties), it is readily possible to separate the sucrose by chemical means. Sucrose and other sugars will react with the oxides and hydroxide of the heavier elements in group II A of the Periodic System of the Elements; calcium, strontium, barium and presumably radium, to form addition compounds known as saccharates. Some of these are insoluble; hence by treating a solution of molasses with one of these oxides or hydroxides under proper conditions and filtering, one can retain most of the sucrose in the precipitate while most of the impurities pass through in the filtrate. The saccharates so formed can be decomposed by acidification, forming the alkaline earth salt of the acid added, and free sugar in solution. The latter can then be crystallized out in its pure form.

This process, widely practiced in the United States, is called the Saccharate Process, or the Steffen Process after its inventor, Carl Steffen.

The practically sugar-free filtrate can now serve as a raw material for the recovery of by products. As can be seen from Figure 1, the molasses contains considerable quantities of glutamic and other amino acids, which are assuming increasing value in medicine and nutrition. Glutamic acid is of particular value because its monosodium salt is a powerful flavor accentuating agent in certain foods, and is currently being recovered on a large scale from this source.

Potassium can also be readily obtained as the chloride and sulfate by incineration of the filtrate, or as a by-product in the glutamic acid recovery.

The disposition to be made of the beet molasses depends, of course, upon the economies involved. In the European countries molasses is highly valued as a source of alcohol, yeast, and stock feed. At times the sugar in this impure form has commanded a higher price than has the pure crystalline product. Under these circumstances, the Europeans make no attempt to recover the sugar from their molasses.

In the United States, however, the price structure has generally made attractive the fullest possible recovery of crystalline sucrose and the chemical recovery of sugar from molasses is widely practiced here.

Choice of Reagents for Saccharate Precipitation

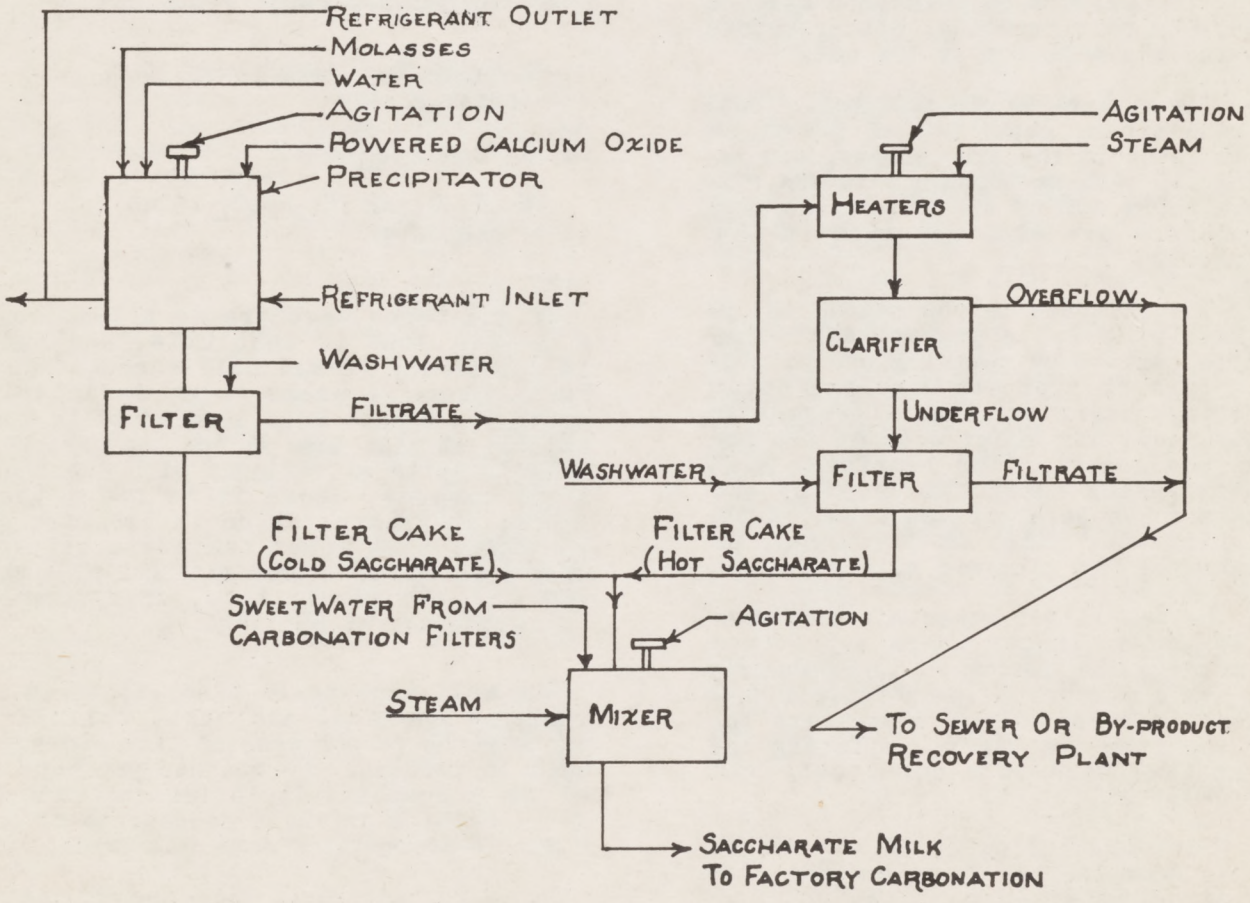
It has been mentioned that the alkaline earth oxides and hydroxides of higher atomic weight can be used for the chemical precipitation of sugar from molasses. Apparently the efficiency of the reaction increases with increasing atomic weight of the elements in the alkaline earth group. Thus magnesium, and probably beryllium, oxide and hydroxide apparently will not react with sucrose to any appreciable extent. Calcium saccharates are well known and readily prepared, but the practical use of the reaction requires highly active calcium oxide and carefully controlled conditions. Strontium and barium in the less active hydroxide form will produce the desired compounds with sucrose under much less exacting conditions; the recovery of sucrose is better; and the separation from the molasses impurities is more complete.

Practical considerations, however, dictate the use of calcium oxide in practically all saccharate process installations. Calcium oxide, or quicklime (CaO) is much less expensive than strontia and baryta. Calcium ion is non-toxic, whereas strontium and barium ions are poisonous. The factory requires lime for carbonation in any event, and in the calcium saccharate process a single quantity of lime gives double service in recovering the molasses sugar and defecating the raw juice.

Only one factory in the United States uses the barium saccharate process. This factory does not work beets - its only source of sugar is molasses which has been recycled through the less perfect calcium saccharate process until it can no longer be economically worked in this way, due to the accumulation of lime-precipitable impurities.

Outline of the Calcium Saccharate Process

The exact mechanism of the calcium saccharate reaction is not clearly understood. The probable reason for this is that it



CALCIUM SACCHARATE PROCESS
DIAGRAMATIC OUTLINE

Fig. 2.

is not used in Europe. It has been the habit of the European, but not the American beet sugar industry to do fundamental research on their processes.

It is possible and interesting, however, to do some theorizing on this reaction by attempting to fit together the peculiarities noted in its practical application. In so doing the proper precautions to be taken in practice can be brought out, their probable explanations given, and some possible avenues for improvement in the process may become apparent to the reader.

First it is necessary to outline the process as used commercially. Figure 2 is a diagrammatic flow sheet which will supplement the description.

(1) The molasses is diluted with water to produce a solution containing approximately 6% sucrose.

(2) Finely powdered CaO is added to this solution with violent agitation. The amount of CaO used is generally 100 to 130% of the quantity of sugar present, or six to eight moles of CaO per mole of sugar. Heat is liberated during this addition, and the temperature is held to a maximum of 18°C. by refrigeration, either before or during the addition of the CaO.

(3) The mixture is now filtered. Under good conditions, about 90% of the sugar will be found in the precipitate, the remaining 10% passing through with the filtrate. About 20% of the non-sugars from the molasses are also retained in the precipitate.

(4) The filtrate is now heated to approximately 90°C. A precipitate forms which is removed by settling and filtration. This precipitate contains about 6.5% of the sugar originally present in the molasses, and about 0.5% of the molasses non sugars. The remaining 3.5% of the molasses sugar and 79.5% of the molasses non-sugars are contained in the final filtrate, which is discarded, or concentrated for glutamic acid recovery,

(5) The two filter cakes are dispersed in a 10% sugar liquor (sweetwater from the factory) and heated to approximately 85°C. This mixture is proportioned into the factory carbonation, along with the raw juice from the beets, replacing the milk of lime used in a non-saccharate sugar factory.

(6) Under the influence of the excess of sugar from the raw juice and the carbon dioxide added in carbonation, and the 85° temperature, the saccharate decomposes to sugar and calcium hydroxide, The latter serves as the defecating agent for the raw juice, while the former proceeds through the factory along with the sugar from the raw juice.

Colliodal Theory of Calcium Saccharate Reaction

The pecularities encountered in this process suggest strongly that the reaction involved is in part a colloidal rather than a true chemical combination. It is found from the chemical literature that the following apparently true chemical reactions are produced in the system lime-sugar-water:

(1) $CaO + H_2O \longrightarrow Ca(OH)_2$

(2) $Ca(OH)_2 + C_{12}H_{22}O_{11} \longrightarrow$

$H_2O + C_{12}H_{22}O_{11}\cdot CaO$ (soluble)

(3) $2Ca(OH)_2 + C_{12}H_{22}O_{11} \longrightarrow$

$2H_2O + C_{12}H_{22}O_{11}\cdot 2CaO$ (soluble)

(4) $3Ca(OH)_2 + 2C_{12}H_{22}O_{11} \longrightarrow$

$3H_2O + 2C_{12}H_{22}O_{11}\cdot 3CaO$ (soluble)

(5) $3\ (C_{12}H_{22}O_{11}\cdot CaO) \longrightarrow$

$2\ C_{12}H_{22}O_{11} + C_{12}H_{22}O_{11}\cdot 3CaO$ (insoluble)

(6) $3\ (C_{12}H_{22}O_{11}\cdot 2CaO) \longrightarrow$

$C_{12}H_{22}O_{11} + 2\ (C_{12}H_{22}O_{11}\cdot 3CaO)$ (insoluble)

Of the three saccharates noted, only $C_{12}H_{22}O_{11}\cdot 3CaO$ is insoluble, and this is apparently formed only through heat. Furthermore it seems to be definitely established that this saccharate is less soluble at high than at low temperatures. This is quite at variance with the practical process, where it is found that the first precipitation is produced in the cold; that lower temperatures produce more complete precipitation of sugar; and that the precipitate, once formed, is decomposed by heating.

The cold saccharate precipitate is of variable chemical analysis, following closely the proportions of lime and sugar used in process. No one has yet reported the successful isolation and identification of a definite saccharate of invariable composition from this precipitate.

It is further found that the efficiency of the first or cold precipitation depends very greatly on the amount available surface in the powdered calcium oxide. CaO prepared by calcining precipitated chalk has a very high specific surface, and is

a very efficient precipitator. CaO prepared by calcining limestone, on the other hand, varies greatly in its efficiency depending on the nature of the limestone and the conditions of calcination (see chapter sixteen).

Even more important than the amount of surface presented by the powdered lime is the character of the surface. The most nearly amorphous and finely divided CaO powder will be rendered practically useless as a sugar precipitator if it contains only a percent or two of recombined carbon dioxide. Such a lime, although useless for the saccharate process, is nevertheless entirely satisfactory for preparing lime milk and for defecating raw juice.

Lime is known to be partly colloidal in its reactives. Von Brusagh has shown that the solubility of lime in water varies with the amount of solid phase present, according to a curve which is characteristic of colloidal substances.

Van Aken has shown that lime can be separated from water solution by dialysis or ultrafiltration, a property which is characteristic only of colloidal materials.

It is well known that CaO when added to water in the cold temperatures, comparing with the operating temperatures in the saccharate process, will form a permanent suspension.

It is difficult to reconcile these known facts by any explanation other than a colloidal theory of the cold calcium saccharate precipitation. It is therefore assumed that the mechanism of this process is as follows:

1. Some of the CaO reacts with the water present to form $Ca(OH)_2$. This latter immediately reacts strongly with the sugar to form soluble saccharates, according to reactions 1 through 4, above. Nees has shown that almost exactly 2 moles of CaO per mole of sugar enter the solution before any precipitation of sugar begins, which may indicate that reaction 3, the production of the disaccharate, predominates.

2. Much of the remaining CaO enters into colloidal suspension due to the low temperature and vigorous agitation employed. The soluble saccharates are highly polar in nature due to their CaO content. They are absorbed on the surface of the colloidal CaO neutralizing its charge and forming the floc which we know as precipitated cold saccharate. Since heat not only unfavorably shifts absorption equilibria but also tends to disrupt the colloidal state of CaO in

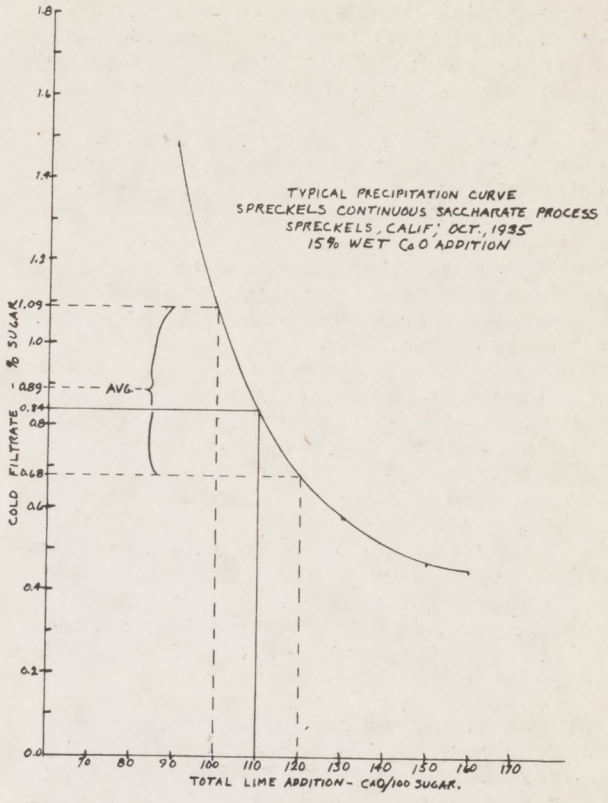


Fig. 3.

water, the precipitate is stable only in the cold.

3. The soluble saccharates which pass through the filter react, when heated, according to reactions 5 and 6 above, forming insoluble tricalcium saccharate. This together with some dissolved $Ca(OH)_2$, which is forced out of solution by heat, constitutes the hot saccharate precipitate. The yield in this precipitation is very consistently 65 to 70% of the sugar present in the heated filtrate. This corresponds exactly with the theoretical yield of equation 6, which again indicates the probability that the disaccharate is the chief compound produced in the cold precipitation.

Practical Aspects of Calcium Saccharate Chemistry

In discussing the theory of the calcium saccharate reaction, several practical points have been brought out, which are reiterated below:

1. The quality of the lime powder is the most important single variable in promoting efficient sugar recovery. A large amount of calcium oxide surface, uncontaminated by recombined carbon dioxide, is essential for good results.

2. A low temperature must be maintained up to the point where the cold saccharate is filtered off. This promotes

the colloidal dispersion of the lime and increases the absorption equilibrium. Generally speaking the lower the temperature, the better the sugar recovery.

3. Immediate and vigorous agitation is required with the addition of the powdered lime, to promote proper dispersion and contact of the reactants.

Other precautions are found necessary from practical experience, and may be explained from the propounded theory of the reaction.

4. The molasses solution must be kept free from foam while the powdered lime is being added. Foam on the surface of the solution traps and floats the lime powder. The floating lumps are slowly slaked by the moisture in the foam. Thus the $Ca(OH)_2$ is not brought into immediate contact with the sugar, furthermore local heating probably occurs during this slaking, so that the proper conditions for the formation of colloidal lime are not reached.

5. The presence of nuclei during both the cold and the hot precipitation is beneficial, both to filtration and to sugar recovery. This is a well known principle in all precipitation and crytallization process. Substances precipitated or crystallized in the presence of nuclei of the same substance tend to form on these nuclei rather than to initiate new particles. As a result, the product so made has a larger and more uniform particle size, and thus filters more readily. There is also much less chance that some of the substance will precipitate in colloidal form, and pass through the filter.

In the cold saccharate precipitation, this condition may be produced by adding the lime slowly or in steps, if a batchwise precipitation is made. If the process is continuous, "seeding" may be accomplished by stepwise addition of the lime, or by recirculating a portion of the finished mixture, or by a combination of the two.

In the precipitation of hot saccharate, proper particle size may be produced by slow or stepwise heating, or by recirculating large volumes of the finished mixture within a continuous heater.

6. Milk of lime may be substituted for a portion of the powdered calcium oxide during the cold saccharate precipitation. Reaction 1, the formation of the monosaccharate, apparently proceeds quite easily with ordinary calcium hydroxide. Thus it is found that CaO in the form of milk of lime can be substituted for powdered calcium oxide in quantities up to 15 to 20% on sugar (approximately one mole of CaO per mole of sucrose) without any loss of efficiency.

This enables a considerable saving in many saccharate process installations, because milk of lime is easier and cheaper to produce than high quality lime powder. Maintenance and capacity on the grinding equipment is reduced. Stored lime can be reclaimed in this way without loss of efficiency. Coarse lime particles which do not react in the cold saccharate process can be recovered by sedimentation and utilized as milk of lime.

Lastly, if the lime milk is cooled after hydration, a good percentage of the heating effect in the cold saccharate precipitation can be eliminated. For this reason the use of lime milk in place of a portion of the powdered lime actually improves the sugar recovery in some saccharate processes, notably the Spreckels continuous process, as will be described later.

7. Variations in proportioning the lime and sugar result in reduced efficiency. If we plot the sugar left in the solution against the ratio of lime used to sugar present, for a given cold saccharate precipitation process, we find in all cases a hyperbolic curve which is characteristic of adsorption processes. Figure 3 shows such a graph. It will be noted from the example shown on this plot that the recovery of sugar per unit of lime used always diminishes when the lime addition is allowed to vary.

Thus in the example given, a uniform lime addition of 110% on sugar will reduce the concentration of sugar in solution to 0.84%. On the other hand a lime addition which shifts back and forth from 100% to 120% on sugar (but averages 110%) will reduce the concentration of dissolved sugar to only 0.89%.

Saccharate Purity, Molasses Degeneration and Discards.

It has been mentioned that the calcium saccharate precipitates contain some of the molasses impurities. It is not possible to make a perfect separation of the sugar from the molasses non-sugars. Some of the latter are unavoidably precipitated by direct reaction with the lime or by colloidal absorption, and so become part of the filter cake. Among such substances are sulphate and phosphate ions, invert sugar, raffinose, and probably several organic substances. By the purity of the saccharate cake we mean the purity of the syrup it will produce after it has been decomposed in carbonation. It is determined by carbonating the cake

in the laboratory, filtering off the calcium carbonate so produced, and analysing the remaining syrup. This purity is a direct measure of the degree of non-sugar elimination achieved in the saccharate process.

Under favorable circumstances, the cold saccharate purity will reach 93 and the hot saccharate 95. Unfortunately such favorable results are seldom achieved for long. Obviously the non-sugars which are brought into the factory by the saccharate will eventually become part of the factory molasses and so return to the saccharate process again. Since it is their nature to precipitate readily with the saccharate there will be negligible elimination of these particular impurities during this second working. However their numbers will now have been reinforced by additional impurities of the same types, which will have been introduced by the raw juice; thus the saccharate produced during this second cycle will be of considerably lower purity. It is apparent that as this recycling process continues, the precipitable impurities will constantly accumulate in quantity, and the saccharate will become lower and lower in purity.

This continual accumulation of impurities in the factory reduces its production capacity and increases costs. It must eventually be stopped, otherwise the operation becomes un-economical. To stop it, a molasses "discard" is made. The saccharate process is temporarily shut down or is fed with fresh ("virgin") molasses procured from a non-saccharate factory. Meanwhile the factory molasses production is directed to separate storage tanks until the accumulated impurities have been cleared out.

The discarded molasses is almost equal in value to virgin beet molasses for feeding, fermentation processes, or barium saccharate recovery of sugar, and is sold for these purposes.

Control of Saccharate Purities

Some measure of control over saccharate purities may be exercised by proper precautions in the Steffen operation, as well as by judicious discarding.

1. Cake washing: Obviously if the impurity laden filtrate is not thoroughly washed from the saccharate, the purity of the latter will be reduced. On the other hand, overwashing is also determental. Saccharate cakes have definite solubilities or absorption equilibria, and tend to dissolve in the wash water. Thus overwashing will increase the sugar loss. Furthermore overwashing of the cold saccharate produces excessive amounts of filtrate which require extra heat for the precipitation of the hot saccharate.

There exists, therefore, an optimum quantity of wash water, which must be determined for each installation, and which usually must be adjusted from time to time to meet changing conditions. The customary method of controlling the wash water usage is through the so called "perfectly washed" purity of the saccharate cake. To determine this, a sample of the factory saccharate is given an additional thorough washing in the laboratory and its purity determined. If the factory saccharate has been properly washed, its purity should not be more than 1.5 below the "perfectly washed" purity.

2. Control of Filtration Pressures: Generally rotary vacuum filters are used for saccharate. The pickup and wash vacua must be controlled to give sufficient filtration capacity without detriment to the purging of the cake.

The optimum pressures to be used will vary among different installations. However good results should be achieved if the pickup vacuum is set to obtain a cake about 1" thick with clean filters, and the wash vacuum slightly higher.

3. Concentration of the molasses solution: The more concentrated the molasses solution, the more strongly are non-sugars absorbed in the saccharate, and the more difficult it becomes to purge the filter cakes, due to increased viscosity of the filtrate. On the other hand, excessive dilution results in increased sugar and heat losses, due to the solubility of the saccharate and the increased quantity of filtrate to be heated. Excessive dilution also reduces the economy of by-product recovery, due to the increased quantity of water to be removed from the final filtrate.

The optimum concentration of the molasses solution usually lies between 6 and 7 grams sugar per 100 ml.

Raffinose

Raffinose is a troublesome factor with saccharate operations, particularly where working beets grown in the cooler climates, such as the Rocky Mountain area. Raffinose is a sugar with the formula $C_{18}H_{32}O_{16}.5H_2O$. It is composed of three simple sugars - dextrose, levulose, and galactose. It is practically tasteless and has no commercial value.

Like sucrose, raffinose is precipitated by lime in the saccharate process, and all raffinose introduced in the beets tends to be retained in a factory equipped with the saccharate process. Since raffinose has a specific optical rotation approximately 75% higher than that of sucrose its presence causes the apparent purity of a syrup to be higher than the actual purity.

It is thus necessary where the saccharate process is used to determine the true purity of the factory materials, particularly the saccharate cakes and the raw filmass.

Equipment for the Saccharate Process

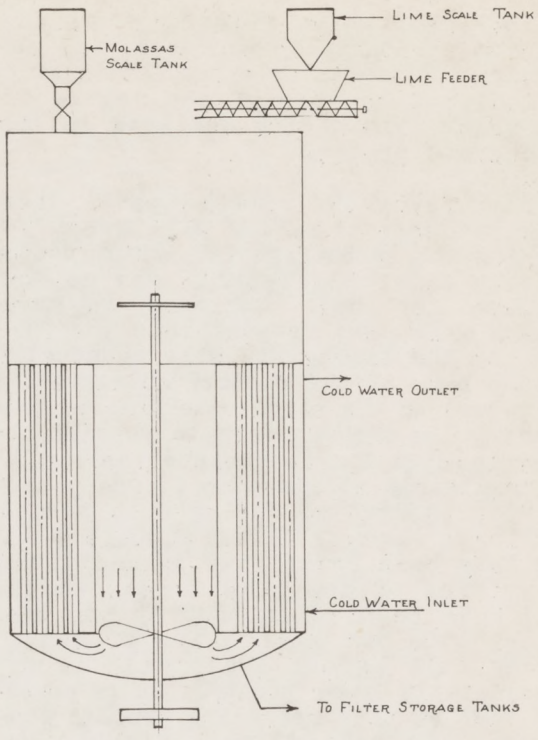
As can be seen from Figure 2, the essential units for the saccharate process are (1) a refrigerated precipitating unit, (2) cold saccharate filters, (3) a cold filtrate heater, (4) a hot saccharate clarifier, (5) hot saccharate filters, and (6) as saccharate mixer. The equipment used for each of these operations will be discussed in some detail.

Batch Cooler

The classical and still widely used unit for the precipitation operation is the batch cooler, which is illustrated in Figure 4. It consists of an open, calandria equipped tank, with a propellor agitator in the calandria well. The calandria chest is supplied with cold water or other refrigerant. Above the tank are mounted a molasses scale, a lime scale, and a lime feeder. The tank has a bottom discharge, equipped with a shutoff valve, which is connected to the supply tank for the cold saccharate filters.

To operate the cooler, a charge of molasses (usually 1 ton) is weighed into the molasses scales and dumped into the tank. The agitator is started, refrigerant admitted to the calandria, and water is added until the desired degree of dilution of the molasses is reached. This is facilitated by an adjustable level gauge, which is set according to laboratory analysis of previous batches made with the same quantity of molasses.

While the solution is being made up, the proper quantity of lime is weighed out and dumped into the hopper of the lime feeder. As soon as the solution is ready, the lime feed is started. The feeder is set at such a rate that the solution temperature never rises above a predetermined value, usually 13° - 15° C. The admission of the lime requires



BATCH COOLER

Fig. 4.

about 15 minutes.

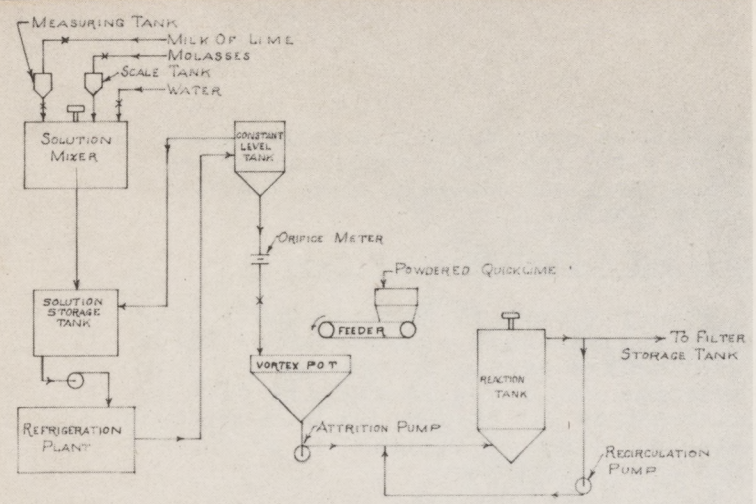
When all the lime is in, the operator filters a sample of the mixture and determines the approximate solids content of the filtrate by means of a Brix hydrometer. This gives a rapid indication of the effectiveness of the sugar precipitation, enabling him to adjust the amount of lime added to the batch, or to succeeding batches, for maximum economical recovery, without having to wait for a laboratory analysis.

If the batch is satisfactory, the discharge valve is opened, the product dumped to the filter supply tank and the cycle repeated.

Spreckels Continuous Saccharate Process (Patented)

This is a system which performs the work of the batch cooler in a continuous operation. It is illustrated schematically in Figure 5.

The dilution of the molasses is performed batchwise in the solution mixer. a Charge of molasses (usually 1 ton to 1 1/2 tons) is weighed out and dumped into the mixer. Next a quantity of milk of lime equivalent to 22% CaO on the sugar in the molasses is dumped in from the lime measuring tank. The agitator is started and cold water is added to a predetermined level to produce a sol-



FLOW SHEET FOR SPRECKELS CONTINUOUS SACCHARATE PROCESS

Fig. 5.

ution of 6.5 grams sugar in 100 ml. The batch of solution is discharged to the solution storage tank and the mixing cycle repeated.

From here the process becomes continuous. The solution is pumped through a refrigerated heat exchanger, cooling it to 4° C. It now passes to a constant level tank, which overflows back to the storage tank. From the constant level tank the refrigerated solution flows through a regulating valve to a funnel shaped vortex pot, which is shown in Figure 6. The constant head supplied by the constant level tank produces a very uniform supply of solution to the vortex pot. The flow is continuously recorded by an orifice type recording flow-meter.

Entering the pot tangentially, the solution produces a vigorous but foam free vortex. This makes an ideal condition for the necessary rapid wetting of the powdered quick lime, which is fed uniformly into the center of the vortex by a belt feeder.

The mixture of lime and dilute molasses now passes through a specially designed mixing pump, which produces the necessary fine dispersion of the lime, and pumps the dispersed mixture to a reaction or curing tank. This tank provides about three minutes retention, with gentle stirring, allowing the adsorption and flocculation to become complete. In order to produce the proper particle size for good filtration, a portion of the finished product from the reaction tank is pumped back to the discharge line from the mixing pump. This provides nuclei on which the newly flocculated saccharate can grow.

From the reaction tank, the product passes to the filter supply tank.

The Spreckels process produces highly satisfactory results with a minimum of labor and floor space. One operator can easily handle the entire unit as illustrated, working up to 200 tons of molasses per 24 hours.

The efficiency of the process may be still further increased by dividing the powdered lime addition between two stages. In this case the first lime addition is exactly as shown, but the discharge from the reaction tank passes to a second vortex pot, mixing pump, and reaction tank of equal size. No recirculation is needed for the second stage of lime addition. Best results are obtained by adding 70% of the powdered lime in the first stage and 30% in the second stage.

Key points in obtaining satisfactory results from the Spreckels process are:

1. A uniform ratio of CaO to sugar in the product should be maintained for reasons outlined earlier. This means (1) uniform batches of solution, varying not more than ± 0.1% sugar or ± 0.1% CaO from the set values; (2) uniform flow of solution to the vortex pot (with-

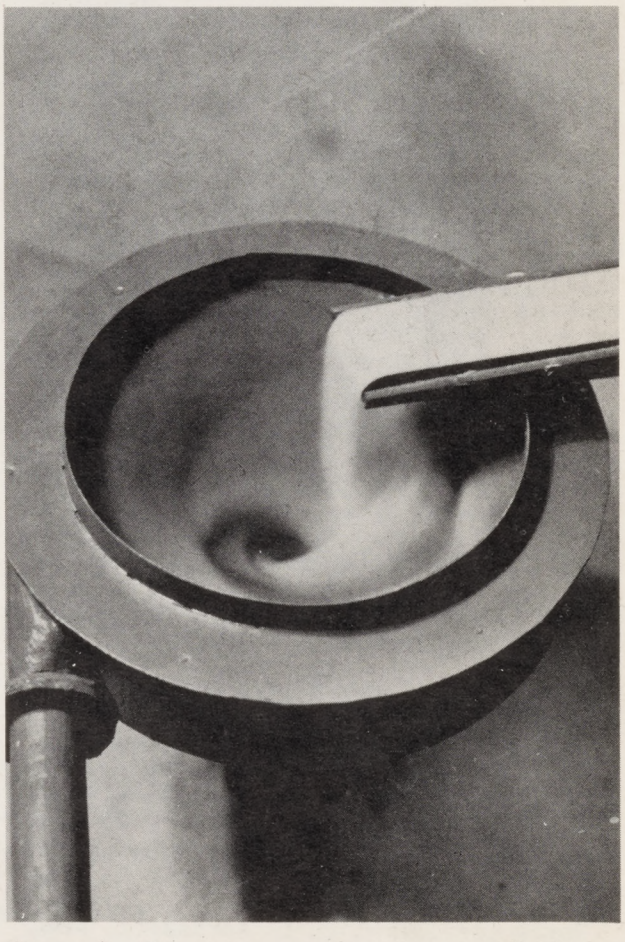


Fig. 6. The vortex pot - heart of the Spreckels continuous saccharate process.

in ± 1% of set point), (3) uniform addition of powdered lime (certainly within ± 5% of the set value).

2. The molasses solution should contain 20% to 25% CaO on sugar. This is somewhat higher than the optimum-value of milk of lime usage in the batch cooler. The reason is that in the Spreckels process the solution is precooled. No refrigeration is accomplished during the addition of the quick lime. Thus, even though the calcium hydroxide in the lime milk does not react too efficiently with sugar above 15 to 20% CaO on sugar, nevertheless the use of slightly more lime milk and correspondingly less powdered lime increases the overall efficiency because more refrigeration can be accomplished and less heat of reaction is liberated.

3. The vortex should be as vigorous as possible without producing surface turbulence or drawing air into the mixing pump. The more rapid the vortex the more satisfactorily is the desirable wetting and dispersion of the lime accomplished. On the other hand, surface turbulence or "pulling air" creates foam in the later stages of the process, which is undesirable. The vortex pots designed for the process are equipped with adjustable baffles for regulating the vigor of the vortex.

4. The length of piping from the vortex pot to the mixing pump is critical. Too short a distance will make it difficult to operate without pulling air. Too long a distance will allow local slaking and overheating of lime agglomerates before they are properly dispersed. Eight to ten feet of 5" pipe produces satisfactory results.

5. The recirculated saccharate should enter as closely as possible to the discharge of the mixing pump. The initial flocculation is extremely rapid, once the dispersion of the lime is accomplished. If allowed to travel through even a few feet of piping before being "seeded", the flocculating mixture will produce its own nuclei in large numbers, and will be difficult to filter.

Comparison of Batch Cooler and Spreckels Continuous Saccharate Process

The batch cooler possesses the single advantage that in regions where a very cold water supply is available, it can be operated without artificial refrigeration.

Where refrigeration is necessary, even for batch cooler operation (water supplies of 13°C. or more) the Spreckels process offers all the advantages of continuous over batch operation, plus greatly reduced floor space, increased efficiency, and probably lower installation cost.

Cold and Hot Saccharate Filters

Rotary vacuum filters of the Oliver type are standard equipment for these services. A system to average 150 tons molasses per day will require five 8' diameter by 14' filters for cold saccharate, and three 4' diameter by 6' filters for hot saccharate.

Cold Filtrate Heater

Standard equipment is the Shafor (patented) continuous heater. This consists of a low cylindrical tank with bottom inlet and over-flow outlet. Its volume is sufficient to provide about 15 minutes retention. Heating is done with a perforated injection coil. A propellor agitator recirculates at a rate of about 40 volumes per unit of feed, providing the necessary seeding for the production of a fast settling, filterable precipitate.

The final temperature is automatically controlled, and is rather critical. The optimum point varies with different molasses, lime, and cold precipitation units, but is usually near 90°C. The optimum should occasionally be determined by laboratory test. Below the optimum temperature, formation of the insoluble tricalcium saccharate may not be complete, and the product is, as was mentioned earlier, more soluble at decreasing temperatures. Above the optimum temperature the product begins to decompose.

Clarifier

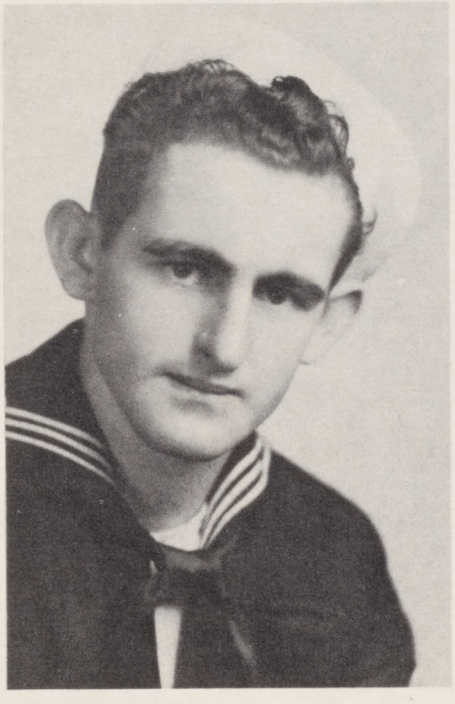
The Dorr multiple-tray clarifier is standard equipment. Other types of enclosed clarifiers may be equally satisfactory.

Saccharate Mixer

This consists of an open cylindrical tank, equipped with an overflow outlet, a steam injector, and a stirring mechanism. The saccharate cakes from the filter are conveyed directly to the tank, where they are continuously diluted with sweetwater from the carbonation filters to the optimum density for factory carbonation (usually about 25° Brix). The temperature is maintained at, or slightly above the temperature of carbonation.

The production of saccharate milk at a uniform density is important for good control of the carbonation. Close attention by the operator to this detail, or the use of an automatic density controller to regulate the sweetwater flow, is essential.

In Memoriam



WILLIAM ALLEN PARR

A native of Manteca, 22 years old, and a veteran of World War II, he was killed outright on August 13, 1948, when a steam pipe burst and hurled him against a steel window and then to the floor of the boiler room at Factory 2, Manteca.

He is survived by his parents, Mr. and Mrs. James W. Parr, Sr., a sister, and two brothers, all of Manteca.

DAVID ALBERT WESTWOOD

Born in Howard, Kansas, in 1882, David Westwood passed away while on vacation in Seattle, Washington, on June 23, 1948.

He is survived by his widow, four children, and nine grandchildren. His son, Raymond, is a sugar boiler at the Manteca factory.

He had been employed as a watchman, oiler, and engineer since March 17, 1931, and was one of the first men employed when the factory reopened that year.

The picture of the early day San Francisco street car is from the J. N. Rosekrans collection

HEADQUARTERS

2 Pine Street
San Francisco

Charles deBretteville, president, Spreckels Companies, director, Spreckels Sugar Company

The New Team — J. N. Rosekrans and Charles deBretteville "on a bicycle built for two." Mrs. J. N. Rosekrans, daughter of A. B. Spreckels, coaches in the background

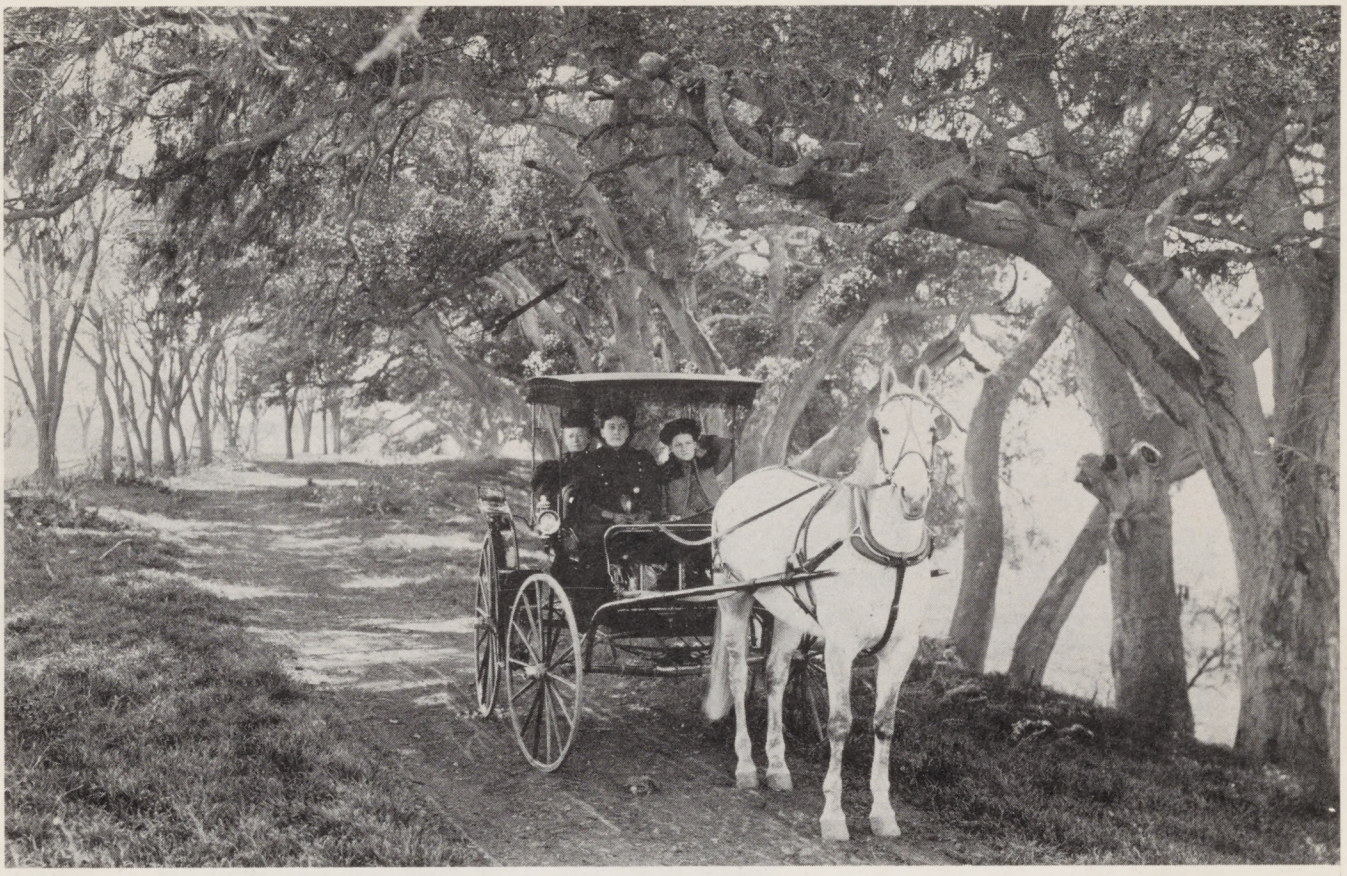
J. N. Rosekrans, vice-president, Spreckels Companies, director, Spreckels Sugar Company

C. J. Moroney, president and director, Spreckels Sugar Company

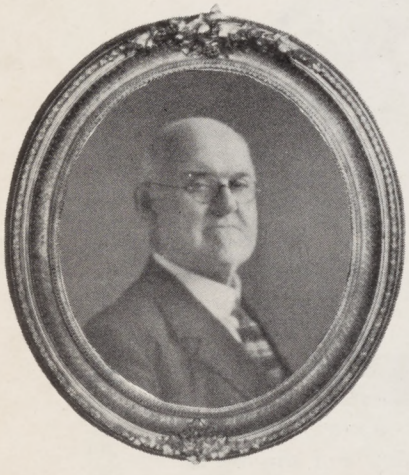
RECENT announcement was made of the incorporation of the "Spreckels Companies" for the purpose of purchasing the financial interests of certain members of the Spreckels family. This reorganization within the Company means the perpetuation of the Spreckels family tradition in the sugar business.

The new company is headed by Charles deBretteville, president, and J. N. Rosekrans, vice-president. The Spreckels Companies, with American Sugar Refining Corporation, are owners of Spreckels Sugar Company. No change in the organization of Spreckels Sugar Company is involved.

J. K. Scott, vice-president of J. D. and A. B. Spreckels Co., retired on July 31, 1948



"Daisy" and "The Surrey With the Fringe on Top" took the ladies for a ride when she didn't have to take Mr. Waters to work with the cart. "Memory Lane," bordered with locust trees, was east of the general manager's residence in the factory grounds near the Salinas River. The mansion was destroyed by fire in 1912. Mrs. Louise Shaw Bullene is pictured holding the reins. Her cousin, Olive Waters, is seated at her side, and her aunt, Mrs. Waters, is on the back seat



William Cochran Waters, builder and general manager of the Western Beet Sugar Company's factory at Watsonville, California, and the first man to hold that position with the Spreckels Sugar Company, was born in New Brunswick, Canada, in 1850

His custom of repeating the words, "I say" was proverbial. When asked a question, the reply would sometimes take the form, "I say, I say, I say, no," or "yes," as the case might be

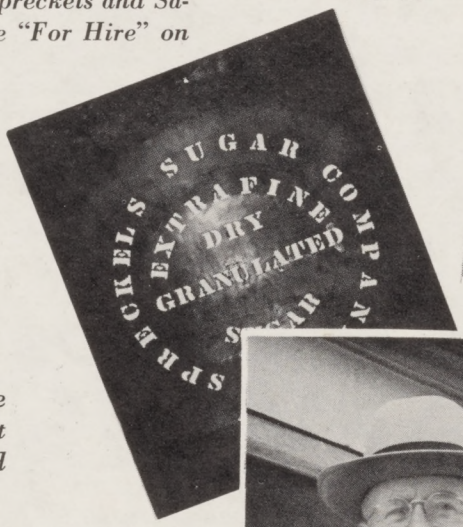
George P. Wright, native of Hayfield, Minnesota, entered the Company's employ in 1919 as district field superintendent at San Rafael. He was appointed district manager of the Sacramento Agricultural District in 1937, and in 1942 was transferred to District One as district manager, with headquarters at Spreckels.

Mr. Wright, with Mrs. Wright, lives in a residence facing the park in the town of Spreckels

Mrs. J. P. Christensen with the equipment she used to carry the mail between Spreckels and Salinas. The horse and buggy were "For Hire" on Sundays

Mr. and Mrs. Tom Summers in 1912. Head pipefitter at Manteca, Summers entered the Company's employ at Spreckels in 1903.

"Fond Memory Brings The Light of Other Days Around Us"



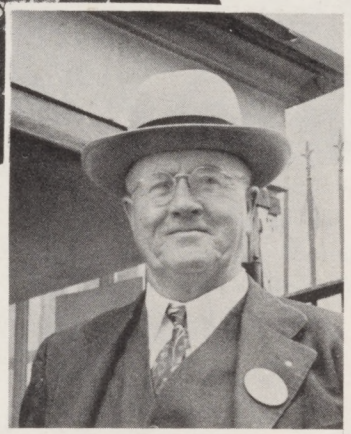
The first brand

THERE was a time back in 1909, and 1910, when old John Stolz was "King of the Sugar End," and even the manager and superintendent had to ask his permission to cross the line between beet and sugar ends.

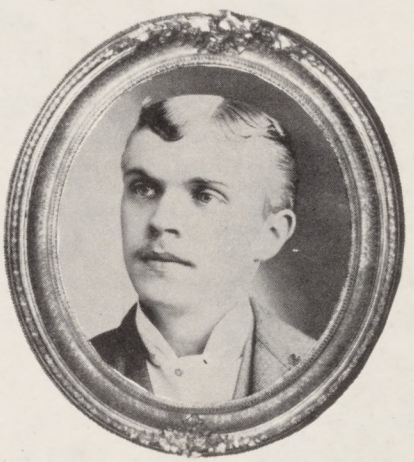
Those were the days when sugar cutting was a real art, for it was cut from the centrifugals with the aid of a spade in one hand, while the other hand controlled the speed of the rotating basket by means of a stick tied to the friction wheel. Naturally, to a lay observer, a man, while practicing this art, looked anything but artistic.

After the first few days of each campaign, old John prided himself on his ability to recognize each sugar cutter, regardless of physical position and, when poor sugar had been cut down, he was wont to use the boot on the most conspicuous part of the suspected offender. Once, his powers of recognition failed and he gave the boot to one whom he mistook for a fellow well accustomed to such action. Up came a red-faced Irishman — a stranger, 200 pounds of bone and muscle — who made a grab for old John and with profane curses threatened to throw him "into one of those whirling tubs." The Irishman missed and quick as a flash, old John was up a ladder to the second floor where, leaning over the rail, he shook his fist at his would-be assailant and yelled, "You're fired!"

— Carl Morse



Sam Bashline, gateman, was employed at Factory One during its first campaign. A boy of thirteen at the time, he operated the sulphur pumps and also worked on the centrifugal floor



Martin Bernt, retired, was a machinist at Factory One during its construction, and the master mechanic at Factory Two when it was built. A note in back of the picture states, "Eyes blue, hair blond." He is presently convalescing from a recent operation

The Good Old Days

Form 78 — PAJARO VALLEY CONSOLIDATED

Name G. Dahlgren Occupation Section man Month of January

Rate Per Hour 2.00

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Job No.	Approp No.	Recharges	Total Hours	Amt.
–	10	10	10	10	–	10	10	10	10	10	10	–	10	10	10	10	10	10	10	–	10	10	–	–	10	–	10	10	10	10		41		240	480.00

Form 78 — PAJARO VALLEY CONSOLIDATED

Name H. C. Hansen Occupation Section Foreman Month of January No.

Rate Per Hour 65.00 per mo.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Job No.	Approp No.	Recharges	Total Hours	Amt.
–	10	10	10	10	–	10	10	10	10	10	10	–	10	10	10	10	10	10	10	–	10	10	10	10	10	10	10	–	10	10	10		41		260	650.00

SPRECKELS SUGAR CO.
SPRECKELS, CAL.

Name T. Berry Occupation Oiler Steffens Plant Month of OCT 1911 No.

Per Hour Day 2.25

5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Acct. No.	Job No.	Recharges	TOTAL HOURS	Amount	REMARKS
																														372	852.00	Insurance 1½% 12.78
																																Spreckels Hotel 839.22
																																Balance due

vs The Present Time

SS 225 20M

SPRECKELS SUGAR CO.
SPRECKELS, CALIF.
FACTORY No. 1

Rate per Hour $ 1.28
Rate per Hour
Rate per Day
Rate per Month

TIME SHEET
PERIOD ENDING Aug. 31, 1948

446-09-4545
John Doe
10000

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	DESCRIPTION OF WORK	Ins.	Account No.	Hours	Days	Rate	Amount
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
8	8	8	8	8	8		8	8	8	8	8	8		8	8	Steffen Oiler			112	14	1.28	143

H. J. Lourentzos

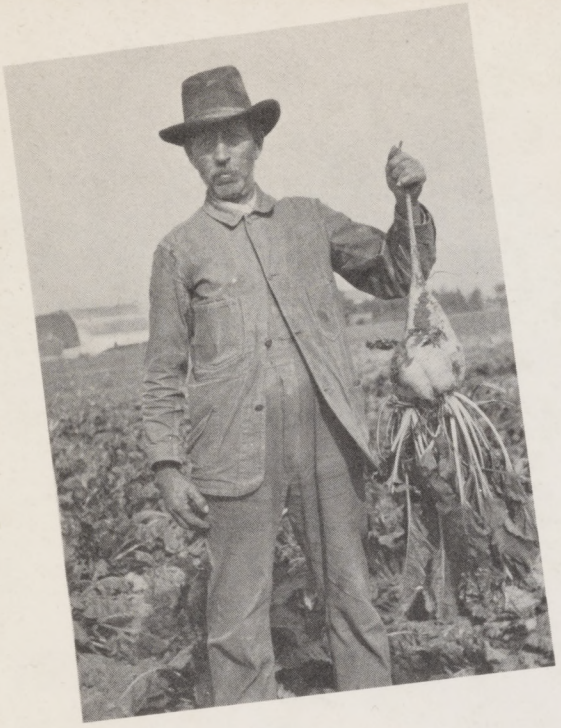
IN THE good old days when men worked long hours and wages were low, a quart of milk or a loaf of bread could be purchased for a nickel. The butcher gave soup bones and soup vegetables to the housewife and bologna to the children accompanying her. The grocer gave his customers a bag of candy when they paid their bill, and the saloonkeeper served a free lunch. Lagniappes were the custom.

Today's loaf of bread costs 20 cents and the Steffen oiler, who earns $1.28 per hour, pays for everything he gets. According to Timekeeper H. J. Lourentzos, if the oiler were to work 12 hours every day for a 31-day month, as in 1911, he would earn a total of $576.00, overtime included.

The deduction of 1½ per cent for insurance, shown on the 1911 time sheet, was before Workmen's Compensation was in effect.

Beets and Beet Men . . . Then and Now

By HAROLD VOTH



J. P. Christensen, Ranch One tenant, grew beets for the first campaign

Mark Dethlefsen, beet grower of long standing, and one of eight brothers, all beet growers, began raising beets for the Watsonville factory in 1889, and has continued to grow them for the Company. His son, Irvin, is also a beet grower

G. P. Wright, district manager, Ralph Lambdin, assistant district manager, and W. H. Paulsen, agricultural superintendent, of the Spreckels Agricultural Department, peruse records of early-day Spreckels

All beets used to be topped by hand

The Machine Age — A modern beet truck receives the beets from the Marbeet harvester, which plows, tops, and loads the beets

SALINAS - *The next door neighbor*

Charles L. Pioda, Garth Lacey, president of the Salinas Chamber of Commerce, and C. J. Moroney were the speakers at the Salinas Chamber of Commerce luncheon honoring the Spreckels Sugar Company's Fiftieth Anniversary. The luncheon was arranged by Fred Tatton, manager of the chamber of commerce

Today's Post Office

The New Court House

Salinas — when hitching posts were the forerunners of parking meters, Spreckels tracks centered Main Street. The opera house was above the livery stable

Big business is moving toward Spreckels, the location of the first big business. Will the twain ever meet?

The Monterey County Court House of long ago. The new building grew around the old one

Warren Farnum and Ronald B. Hayes of the 2 Pine Street office; Ruth Brigham with International News Service; and Hugh Melvin, district manager with headquarters at Sacramento, estimate the weight of a beet. Miss Brigham covered the Queen Contest for the Hearst papers.

"Fifty For Us"

All Spreckels Plants Celebrated Fifty Years of Continuous Operation Of Factory 1

Ronald B. Hayes

"Fifty years of continuous operation deserve recognition," said Ronald Hayes. From this suggestion and the untiring efforts of Mr. Hayes, the human dynamo, grew the golden anniversary celebration which was observed by all the cities surrounding the Company's three factories

Like the cry of "Gold!" which went ringing throughout the land when gold was discovered in California, went the news of the 50-year celebration. Mayors made proclamations; there were editorials, and congratulations.

THE WHOLEHEARTED co-operation of every person in the Spreckels organization, plus the participation of thousands of grocers and sugar beet growers, helped to make the 50th Anniversary one of the most successful celebrations in the history of the Company.

Window Display, Leask's, Santa Cruz

Merchants (other than grocers), civic officials, the press, and radio participated actively in the celebration. Practically all factory-town establishments and many stores in other parts of the beet-growing areas put in special 50th Anniversary window displays.

Gordon Lyons, secretary of the California Sugar Beet Growers' Association, encouraged his listeners to buy California-grown sugar

J. E. Coke said, "I know that everyone working with Spreckels urged his, or her, grocer to stock Spreckels Honey-Dew, pointing out the importance of our product to the community. This splendid co-operation resulted in achieving one of our main goals: to have more Honey-Dew stocked and displayed in more stores in the beet-growing areas. Nearly eight hundred grocery stores in the sugar beet growing areas have stocked Honey-Dew sugar for the first time in years. This would not have been possible without the complete co-operation of every person working with Spreckels"

Neoma Petersen, eighteen, was chosen to reign over the Spreckels Sugar festival in conjunction with the Yolo County Fair. Toni Doyle, California Centennial Girl, at right

There was plenty of fun for the children during Anniversary Week (August 9 to 14), too. They had a chance to win a year's supply of candy in the Fiftieth Anniversary Guessing Contest. Over fifty prizes were given to boys and girls in every section of the beet-growing areas

Patricia Miljarak, daughter of Mr. and Mrs. John Miljarak, a winner in the Candy Guessing Contest, is pleased with her award and the jar of candy which was presented to her by President Moroney at the chamber of commerce luncheon in Salinas

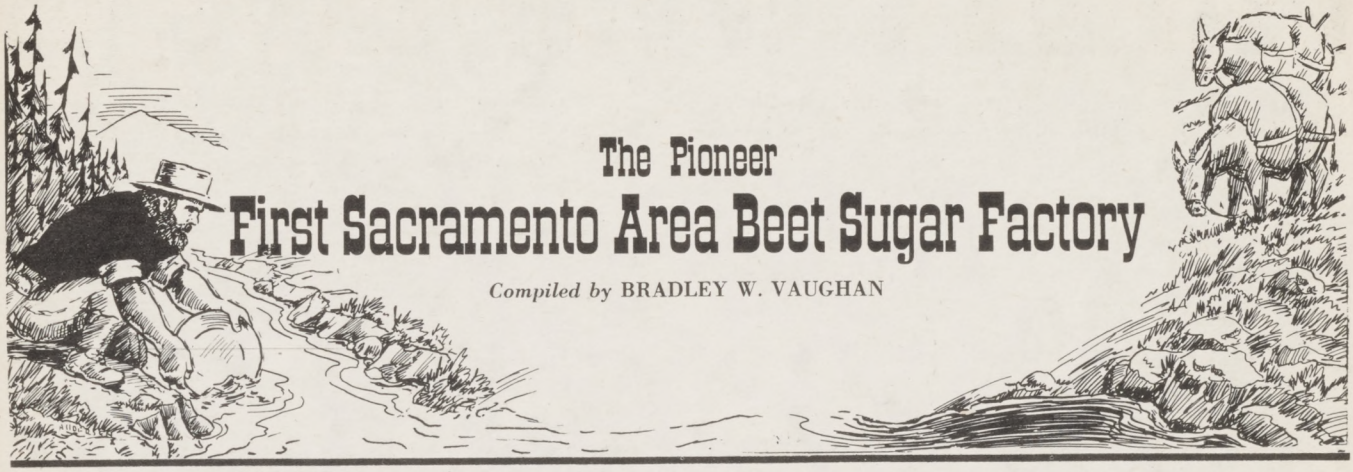
W. H. Hannam

The Board of Directors of Spreckels Sugar Company records the death of W. H. Hannam; and it becomes its solemn task to place in permanent memorial its expression of sorrow at the loss of Mr. Hannam, who was the friend and associate for so many years of the members of this Board. He died in San Francisco, where he resided, on July 14, 1948. He entered the employ of Spreckels Sugar Company, December 24, 1899. He devoted the greater part of his life to the interests of this organization and was ever judicious, careful, and conservative in the management of its affairs. When he resigned as director in 1946, he had completed a distinguished service of forty-six years. As a man, Mr. Hannam was gentle, unselfish, and kindly. As a friend, he was dependable and true. His fine character and loyalty will ever remain one of the cherished memories of this organization and of each and all of his friends. The community in which he lived has lost one of its most worthy and respected citizens.

NOW, THEREFORE, BE IT RESOLVED, That this Memorial be entered upon the minutes of the Board of Directors, and that a copy be presented to Mrs. W. H. Hannam, to whom the Board expresses its deep sympathy and a sense of irreparable loss.

BOARD OF DIRECTORS
SPRECKELS SUGAR COMPANY

Dated: San Francisco, California
August 5, 1948



The Pioneer
First Sacramento Area Beet Sugar Factory

Compiled by BRADLEY W. VAUGHAN

JUST EIGHTY years ago, a group of enterprising businessmen launched an effort toward the extraction of sugar from sugar beets, and a site was selected for a factory at Brighton, four miles east of Sacramento. The group's moving spirit was W. Wadsworth, who had prepared himself by a season's job as a workman in a sugar house at Leythen, Prussia, and in 1867, at Sacramento, had raised trial plots of sugar beets which gave promising results.

A company was organized and styled the Sacramento Valley Beet Sugar Factory, Inc., with a capitalization of $300,000. Wadsworth built a small pilot plant which produced 150 pounds of crystal sugar, the date of this historic event being recorded as December 10, 1869. The equipment included a diffusion battery system, invented by Dombasle, of France, and was the first of its kind to be used in the United States. The Brighton battery contained fourteen 42-inch cells at one and one-half ton capacity, producing fifty to one hundred fifty tons of beets daily. The project was well conceived, and under Wadsworth's management a superior job was achieved.

The builders of the Alvarado factory, in Alameda County paid Brighton a visit and made envious comparisons, since Alvarado had installed a less efficient extraction apparatus. Wadsworth, a man of practical judgment, though of little sugar house experience, had won the confidence of his fellow stockholders through his pilot plant experiment.

At this stage, a certain Count de Grammont appeared from France, and professed to be an expert in both cane and beet production. He convinced the directors that Wadsworth's test was unreliable and that he lacked the experience necessary to acquire competency to operate so complicated a plant. Obediently, the directors appropriated $12,000 for a test run and ordered the Count to proceed.

The Count shrouded his procedures in mystery, and on October 10, 1870, delivered two barrels of "grocer's sugar." However, a rumor got around that the eminent Count had "salted" the pan, so the directors ordered a repetition of the test under the supervision of a committee. At the appointed time, the committee was there, but the Count was not. He had protested that one of the members was objectionable! Subsequently, he reported that he had made a test the following day in the presence of two competent judges who pronounced the test successful. The Count resigned and announced that he would return to France. Wadsworth also left the organization, and the entire matter precipitated a dispute which delayed the opening of the factory until 1871, therefore forfeiting the credit of producing the first commercial sugar to the Alvarado factory.

The Brighton plant was reopened, and for three years it produced saleable sugar, beginning with about fifty tons the first year and ending with five hundred tons. Sugar per cent started with 7 and rose to 13½. To complicate the situation, neighborhood farmers would not accept the company's offer of six dollars per ton for beets. Consequently, in 1873, the company planted a square mile of sugar beets on its own property and another square mile on leased land. The operation produced a loss, and sugar manufacturing was discontinued, although for three years more the factory produced molasses.

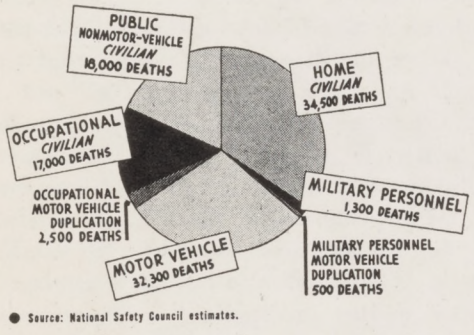
By 1876, serious difficulties forced the business into receivership and it fell into the hands of the Capital Savings Bank. The loss of six years of operation was said to have aggregated half a million dollars. The Brighton factory, Sacramento area's first, ceased operations entirely, and in 1879, the equipment was sold and subsequently removed to Alvarado.

SAFETY is everybody's job

DURING the past fifty years, accidents have been responsible for untold numbers of injuries and deaths.

Industrial accidents have steadily declined during these years, and although no adequate records were kept fifty years ago, there has been a decrease of over 50 per cent since 1930.

Today, the factory is actually far safer than the home or the highway. In 1947, industry accounted for 17 per cent of the accidental deaths. Over four times as many occurred in the home and on the highway.



● Source: National Safety Council estimates.

In the Spreckels organization, the first half of 1948 resulted in fewer days lost than in any similar period in the history of the Company with the exception of the year 1941.

We were rudely shocked out of any feeling of satisfaction for this safety record when during the week of August 15, Louill Boland, working at the Earlimart beet receiving station suffered a severely crushed foot and William Parr of Manteca was killed.

There is nothing any of us can do now for Bill, but we can do a great deal towards preventing similar accidents in the future.

The combined efforts of all of us will be necessary if we are to eliminate the unsafe practices and unsafe conditions which contribute to accidents.

All departments in the factories and agricultural districts are represented by safety committees. One of the principal duties of these committees is to report once each two weeks on the condition of their work areas.

If you notice anything which you feel could cause an accident be sure to report it to your committee. Your suggestions will be given careful consideration and every effort will be made to eliminate all unsafe practices and conditions.

LET'S PREVENT ACCIDENTS *BEFORE* THEY HAPPEN!

The trophy for the best safety record for the first half of 1948 was awarded to Manteca. During the second half of the year, the agricultural districts will be included in this contest. The Salinas district deserves a pat on the back for a perfect record for the year to date. Not one lost time accident in seven months.

The results of the interplant contest closing July 1 were as follows:

Manteca, 2 accidents ..... 98% Perfect

Spreckels, 13 accidents ..... 93% Perfect

Woodland, 6 accident ..... 75% Perfect

SAFETY CONTEST – JULY 1948

	Lost Time Accidents	*Days Lost Time*	*Frequency Rate*	*Severity Rate*	*Comparative Standing* (100% = Perfect)
Salinas District	0	0	0	0	100%
Manteca Factory	0	0	0	0	100%
Spreckels Factory	1	7	16.25	.116	98%
Sacramento and Bakersfield Districts	1	2	88.58	.18	84%
Woodland Factory	2	8	78.40	.235	82%

NOTE: Frequency rate — Lost time accidents per 1,000,000 man hours worked.
Severity rate — Days lost time per 1,000 man hours worked.
Comparative rate — Frequency times Severity subtracted from 100%.

*"Honi Soit Qui Mal y Pense"**

Etiquette – Fifty Years Ago

AVERY sedate face is not appropriate to a ballroom. Cultivate a pleasant expression. Some gentlemen perform a dance as if it were a sacrificial duty. Dance like a gentleman; avoid the nice precision of a dancing master.

None but the uncultivated would offer a partner in the dance an ungloved hand.

You should not rush to the supper room immediately the announcement is made, but walk around the room once or twice and move toward the supper-room as if certain there would be all that your partner required at any time.

Jokes in Spreckels Courier, 1907

"Leave a kiss within the cup and I'll not ask for wine." Who'd ask for wine anyway, when the same effort will secure Old Gilt Edge Whiskey, either rye or bourbon.

The Landlady: "Can I help you to some more soup, Mr. Dumley?"

Mr. Dumley: "No, thanks."

The Landlady (engagingly): "Don't refuse just because it isn't considered good form to be helped twice to soup. We're not particular people here."

Mr. Dumley: "Oh, etiquette has nothing to do with it. It's the soup."

Farmer Bentover: "I've just heard that the Widder Diggs has married her hired man."

Farmer Hornbeak: "Then, by golly, he'll have to climb down from the fence and go to work."

*

A Proposal of Fifty Years Ago

My dear Miss Hunter: Our long acquaintance has given me ample opportunity to learn the excellences of your character, and prize them at full value. It has also afforded you a like opportunityq to judge whether I possess those characteristics which you would desire in a husband. Am I presumptuous in hoping that you will consent to become my wife? Until I receive your answer I shall remain

Your anxious and ardent admirer,
CHARLES CARTER

An American labor delegation visited the Skoda works in Czechoslovakia. The Americans asked: "To whom does this factory belong?"

"We, the people, own it," said the guides.

"Who owns the machinery?" asked the Americans.

"We, the people, own it," the guides answered.

"Who gets the profits?" the visitors demanded.

"We, the people, get them," was the reply.

Then the Americans saw three large cars parked nearby, and asked who owned them.

"One is owned by the commissar for defense, the second belongs to the chairman of the workers' committee, and the third to the representative from Moscow, who is visiting here," the guides told them.

Then a Skoda delegation arrived in America to tour industrial plants. An American labor leader showed them the Ford factory .

"Who owns this factory?" the workers asked.

"Mr. Ford does," said the American.

"Who owns the machinery," they asked and were told Mr. Ford owned it.

"Who gets the profits?" the Skoda men continued.

"Mr. Ford does," said the American.

Then the visitors saw 30,000 cars parked in a nearby lot, and asked: "Who owns all those cars?"

The American grinned. Then he said: "We, the people, own those cars."

— Industrial Press Service

*

A Proposal of 1948

In the spring of 1948, when a young man's fancy lightly turned to thoughts of love, a night club hat checker publicly made it known that she would give herself in marriage for the sum of $10,000.00. She didn't ask for character references. All she was interested in was cash on the barrel head.

*

When a man and a woman marry they become one, and it doesn't take them long to discover which one.

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* The motto of the Order of the Garter.

SPRECKELS SUGAR COMPANY

SPRECKELS BUILDING · ONE POST STREET · SAN FRANCISCO 4 · CALIFORNIA

August 17, 1948

Dear Reader:

It takes a lot of people, doing a lot of work together, to make a program as completely successful as our 50th Anniversary celebration has been — and all because of your splendid cooperation and the whole-hearted cooperation of our sugar beet-growing friends. Spirit like this will help to keep Spreckels Honey-Dew Sugar — your sugar and mine — the number one beet sugar in the west.

Right now, over 80% of the leading grocers in the 17 sugar beet-growing counties are stocking Spreckels Honey-Dew Sugar.

Sincerely,

C. J. Morony
President

SUGAR FROM AMERICAN FARMS ... HOME-GROWN IN THE WEST